

Town of Cumberland Comprehensive Plan 5-Year Update

Adopted by the Town Council
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I. EXECUTIVE SUMMARY

The Town of Cumberland is a diverse community located in the northeast corner of Rhode Island, approximately 28.4 square miles in area with a population of over 30,000 people. The Town has a mixed development pattern with urban development dominating the southern portion of the community along its border with Central Falls, Lincoln, and Massachusetts; suburban development in the central and northwest region, and rural development in the northeast. The Town has experienced rapid growth in residential development in the past decades; it is clear that this trend will continue to use up the Town's open lands and diminish its unique character if unchecked. Easy access to State highways makes Cumberland a desirable location for growth; this growth has exceeded former projections. Demand for new housing remains strong, with indications that it will increase. The Town is faced with the difficult challenge of continuing to provide municipal services to a rapidly expanding residential population while maintaining a reasonable tax rate and preserving its unique characteristics and open space.

Cumberland does not possess an adequate tax base for tax revenue from the commercial and industrial sector to offset continued rapid growth in the residential sector. It is not possible for the commercial and industrial sectors to keep pace with the broadening residential sector, nor does the community wish to become a regional shopping or manufacturing center which, in turn, have their own traffic and environmental issues. The increase in population has put tremendous pressure on the Town's ability to provide services to its residents. Moreover, this trend is showing no signs of abating, in part, due to an expanding economy and high demand for housing in the Northeast. As the Town moves towards build-out, increased demand for services for new Town residents will result.

Like all Rhode Island communities, the Town of Cumberland adopted a Comprehensive Plan. Among the many goals and policies that will guide the Town into this new century are a series of recommendations that address growth and development in the Town. *The Cumberland Comprehensive Community Plan 1991-2010, as updated in 2003*, recognizes growth management as a major issue facing the Town. Development of Cumberland's vacant land at current rates is a threat to the environment, rural character, safety, appearance and accessibility of residential areas.

The Town's Comprehensive Plan provides ample justification to pursue growth controls and management in several of its elements. The Town's primary goals are to promote the general health, safety and welfare of its current and future residents. The Town also strives to maintain a high level of educational and municipal services. But the current pace and character of development may limit the Town's choices in charting its own destiny. New regulations and vigilant application of the Town's existing regulations, as articulated in this Plan, must be implemented to meet the needs of the entire community.

A. SCOPE OF THE COMPREHENSIVE PLAN

The Comprehensive Plan examines the physical, cultural, social, and economic characteristics of a community. It determines how these factors, individually and in combination with each other, will influence the future development of the community. The Plan then formulates strategies consistent with the development capacities of the community and the desires of its residents.

The scope of this Plan is comprehensive in three ways. First, it is a plan for the entire Town: providing broad recommendations for the Town as whole, as well as specific recommendations for particular areas within the Town. Second, it makes recommendations for all major policy areas, including land use, transportation, town facilities, etc. Third, it attempts to integrate all of the spatial and policy aspects of future development into a comprehensive development program.

This Plan addresses all parts of the town, both developed and undeveloped. Because of anticipated pressure for development of presently undeveloped lands, there is more emphasis on recommendations for undeveloped areas. The first step to implementation of the Plan will be to revise the Zoning Ordinance to bring it in line with the recommendations of the Plan.

Finally, because the timing and pattern of growth in the community are affected by a variety of dynamic factors, many of which are beyond community control, periodic updating and review of the Plan will be required.

B. PLAN DEVELOPMENT PROCESS

This Plan updates the 1991 Plan (which, in turn updated the 1966 Plan). Rather than provide revisions in the style of an appendix, this Plan will replace the 1991 Plan. The revisions are so extensive, ranging from inclusion of the year 2000 census data and other newly gathered information, to the reformulation of goals and objectives to reformatting of the document for greater clarity, that the Plan would be too complicated if presented in any other manner. Cumberland's 2003 Comprehensive Plan relies heavily on the growth management program initiated in 2000 and which continues through till today. The Plan development was a dynamic process of data collection, analysis of issues, formulation of goals and policies, and synthesis of recommendations leading to the articulation of the goals. This process was interactive in the sense that it was dependant on the direct involvement of the community through a program of citizen and community participation. While the 1991 plan used a written survey to determine citizen's needs, the 2003 Plan depended more on workshops and interviews. Differences and similarities between citizen's needs in 1991 and 2003 are identified throughout the text as appropriate.

C. PLAN FORMAT

An inventory of existing conditions and resources furnishes the starting point for evaluating Cumberland's options for the future. Each element begins with such an inventory. Also contained in each element is how Cumberland has changed since 1991.

The **Findings** section represents a summary of the research, data collection and analysis for the eight functional elements. The **Goals** are broad statements which represent desired future conditions. Each goal is followed by a set of policies. **Policies** are statements of position which are designed to serve as guides for achieving specific goals. The **Actions** are the methods to be undertaken by the Town to implement the goals and policies. Rather than reprint the findings, goals and recommendations in this Executive Summary, as the 1991 Plan did, the goals and recommendations are offered in an easy to read "Implementation" section at the end of this Plan, as well as at the end of every element.

Ideally, the Implementation section can be used as a checklist by which to measure progress. Citizens at the 2003 public workshops wanted assurance that their suggestions

would be considered and that there be more accountability regarding the Town's stated goals. Regularly scheduled community workshops during which the implementation section is reviewed and discussed may be what is needed to communicate the administration's progress and offer citizens an opportunity to participate in dictating course corrections.

D. ACKNOWLEDGEMENTS

The Town of Cumberland wishes to thank all those who assisted in the development of the Comprehensive Plan. The input of those persons who assisted in the development of the original 1991 Plan is acknowledged, their names can be found in the text of this document. The Town also wishes to thank those who assisted in, or provided information for, this update of the Comprehensive Plan:

- David Balfour – Chairman, Historic District Commission.
- Peter Bouchard – Valley Affordable Housing
- Alan Brodd- Director, Department of Public Works
- Joseph Bucci- RI Department of Transportation
- Ernest Cimino – Chief, Valley Falls Fire Department
- Alice Clemente, Blackstone River Watershed Council
- David Coutu – Chair, Cumberland Planning Board
- Dave Doyle, RI Department of Transportation
- Rick Enser – RI Department of Environmental Management
- Neal Fiorio – Superintendent, Cumberland Water Department
- Lori Gagnon – Director, Cumberland Senior Center
- Robert Garon – Chief, Cumberland Fire Department
- George Gifford - Gifford Design Group
- Rene Gendreau – Chief, North Cumberland Fire Department
- Michelle Godin - New England Economic Development Services, Inc.
- Julie Guerin - Cumberland Conservation Commission
- Craig Letourneau – Director, Cumberland Recreation Department
- Janet Levesque – Director, Cumberland Library
- Jon McCoy – Cumberland Land Trust, Inc.
- Joseph Nasif – Superintendent, Cumberland School Department

- Roger Pierce, Cumberland Building Official
- Kevin Ruddock, The Nature Conservancy
- Derwent Riding, RI Statewide Planning Program
- Karen Saucier, Cumberland Land Trust Inc.
- Anthony Silva - Chief, Cumberland Police Department
- George Stansfield - Officer, Cumberland Police Department
- Richard Susi - Chief, Cumberland Hill Fire Department
- Katherine Tripani - RI Statewide Planning Program
- Bruce Vild - RI Statewide Planning Program
- Kathleen Wainwright - The Nature Conservancy

In addition to those people mentioned above, the Town also wishes to thank all those who participated at the public workshops, members of the Town Council, Conservation Commission, Recreation Commission, and Planning Board, and the Blackstone River Valley National Heritage Corridor Commission.

II. DEMOGRAPHIC ANALYSIS

A. INTRODUCTION

This demographic analysis establishes past trends and projects future population characteristics for the Town of Cumberland. It then explores the relationship of these estimates to both current and future service demand. The demographic analysis examines historic trends in both overall population change and population composition. It examines the short and long-term population forecasts that served as the basis for predicting service demand in the 1991 Comprehensive Plan. Updated population forecasts based on more recent data are included; however, the Rhode Island Statewide Planning program will have new population projections available in Fall of 2003. These forecasts will most likely be incorporated into this Comprehensive Plan in the form of an amendment. The forecast element of the analysis is intended to integrate population change with general land use to guide planning policy and explore the implications of community growth. This element of the Plan is divided into three sections:

- **Long Term Analysis** - The characterization of population change and growth in the community by describing long-term trends and their relationship to the evolution of Cumberland.
- **Contemporary Demographic Shifts and Trends** - The study of significant post 1970's changes in the size and composition of the population which were determinants of public service demands of the recent past. A discussion of the accuracy of near-term and long-term forecasts used in the 1991 Plan is included in this section.
- **Population Forecasts** - Estimates of future population levels as indicators of future public service demand.

B. FINDINGS

1. Long Term Analysis

Historic Population Growth in Cumberland

As shown in Table II-1, Cumberland has undergone significant population growth during the twentieth century. Between 1900 and 2000, its population grew from 8,925 to 31,840, an increase of over 350 percent. During the same period, Rhode Island's

Table II-1 Long Term Population Trends

YEAR	TOWN POP.	PERCENT CHANGE	STATE POP.	PERCENT CHANGE
1900	8,925	N/A	428,556	N/A
1910	10,107	13.2%	542,610	26.6%
1920	10,077	-0.3%	542,610	26.6%
1930	10,304	2.2%	687,497	13.7%
1940	10,625	3.1%	713,346	3.7%
1950	12,842	20.8%	791,346	11.0%
1960	18,792	46.3%	859,788	8.5%
1970	26,605	41.6%	946,725	10.1%
1980	27,609	1.7%	947,154	0.005%
1990	29,038	7.2%	1,003,464	5.9%
2000	31,840	9.6%	1,048,319	4.5%

SOURCE: U.S. Census of Population, 1900-2000

population increased from 428,566 to 1,048,319, or 245 percent. Thus, Cumberland has grown at approximately 1.4 times the rate as the State as a whole. This growth has not been consistent. The Town's historic development surged at the beginning of the century, then remained static up to World War II. Between 1900 and 1910 the Town experienced a 13 percent increase in population. This growth corresponds to Rhode Island's period of industrialization and expansion. For

the next 30 years, however, the Town grew only slightly more than five percent. In the forty years between 1900 and 1940, Cumberland's population gained 1,700 persons.

The post-war experience was very different. Between 1940 and 1950, the Town's population grew by 20.9 percent; between 1950 and 1960, it grew by 46.3 percent; and between 1960 and 1970, by 41.6 percent. This represents a population increase of over 150 percent in the thirty-year period, 1940 to 1970. During the same period the State's population increased by less than 33 percent. Cumberland's post-war rate of growth was therefore nearly five times that of the State.

The ten-year change between 1970 and 1980 was 1.7 percent. While this is a relatively minor increase, it is still significant when compared to the population growth for the State, which was less than one percent during the same period. Between 1980 and 1990 the Town grew by 7.2 percent while the State grew by only 0.05 percent. In the most recent

decade, the Town has grown by 9.6 percent while the State grew 4.5 percent.

2. Contemporary Demographic Shifts and Trends

Age and Racial Characteristics of the Population

The demographic profile of Cumberland reveals an aging population, as exemplified by changes in median age: in 1970 Cumberland's median age was reported as 29.2 years. This increased to 33.8 years in 1980, 36.7 years in 1990 and 39.3 years in 2000.

Table II-2 shows the ten-year changes by Census age cohorts; the greatest increase and decrease for each decade is underlined. Between 1970 and 1980 Cumberland's most

Table II-2 Composition by Age

AGE COHORT	POP 1970	POP 1980	% CHANGE	POP 1990	% CHANGE	POP 2000	% CHANGE
0-4	2,274	1,280	<u>-43.7%</u>	1,785	39.5%	1,971	10.4%
5-9	3,022	1,797	-40.5%	1,808	0.6%	2,207	22.1%
10-14	3,029	2,596	-14.3%	1,749	<u>-32.7%</u>	2,257	29.0%
15-19	2,340	2,930	25.2%	1,814	<u>-38.1%</u>	1,872	3.2%
20-24	1,464	1,950	33.2%	1,856	-4.9%	1,232	-33.6%
25-34	2,963	3,418	15.3%	4,766	39.4%	3,901	-18.1%
35-44	3,561	3,379	-5.2%	4,393	30.0%	5,735	30.5%
45-54	3,603	3,521	-2.3%	3,365	10.4%	4,600	36.7%
55-64	2,254	3,283	45.6%	3,273	0.3%	2,967	-9.1%
65-74	1,359	1,792	31.8%	2,627	<u>46.6%</u>	2,608	-0.7%
75+	736	1,122	52.5%	1,602	42.8%	2,490	55.4%
Total	26605	27069	1.7%	29038	7.2%	31840	9.6%

SOURCE: U.S. Census of Population, 1970-2000

rapidly increasing age groups were 55-64 years (45.6%), 65-74 years (31.8%) and 75+ years (52.5%). Considerable declines were recorded in the earliest age cohorts: -43.71 percent for 0-4 years, -40.54 percent for 5-9 years and -14.3 percent for 10-14 years. These trends changed significantly in the 1990 - 2000 period. While the elderly sector (75+ years) continued to show rapid growth (55.4%), the middle years of 35-44 and 45-54 also show a strong growth trend (30.5% and 36.7%) as do the pre-school (0-4), elementary (5-9) and middle school age groups (10-14). The college and young family age groups (20-24 and 25-34) show declines; this may reflect the high cost of housing or simply an aging population. A similar trend can also be seen in Statewide figures: in Rhode Island as a whole, the youngest age cohorts declined significantly between 1970 and 1990, and then increased slightly over the past decade.

Table II-3 describes the racial characteristics of Cumberland's population. The 1980 population was approximately 98 percent white and 2 percent nonwhite. By 1990 the

Table II-3 Composition by Race and Ethnicity

RACE	POP 1970	%1970 POP	POP 1980	%1980 POP	POP 1990	%1990 POP	POP 2000	%2000 POP
WHITE	26,549	99.9%	26,841	98.0%	28,730	98.9%	30,803	96.7%
BLACK*					71	0.2%	180	0.6%
AM. INDIAN*					11	0.0%	25	0.1%
ASIAN*					116	0.4%	264	0.8%
HISPANIC**			318	1.2%	440	1.5%	667	2.1%
OTHER*					110	0.4%	267	0.8%
TOTAL	56	0.1%	546	2.0%	748	2.6%	1,411	4.4%
NON-WHITE								

SOURCE: U.S. Census of Population 1970-2000

*Detailed data not available for 1970-1980

**Data not contained in Total Non-White for 1970

racial make up of the Town had become 98.9 percent white and 1.1 percent nonwhite. The non-white composition increased to 4.4 percent by 2000; nearly double the 1980 population. Racial composition was uniform across all age groups, with the exception of those older than 70 years. This racial breakdown contrasts to that of the State, whose 2000 population is approximately 85 percent white and 15 percent nonwhite.

Socio-economic Characteristics of the Population - Table II-4 documents some of the more significant changes in socio-economic characteristics of Cumberland's population which occurred between 1970 and 2000. One of the more notable observations is the decrease in the average household size from 3.49 in 1970 to 3.05 in 2000. This decline is consistent with the accompanying data which shows a 60 percent increase in the number of households during the 1970's, but only a 35 percent increase in the number of families.

Table II-2 Selected Social Indicators

INDICATOR	1970	1980	1990	2000
POPULATION	25,605	27,069	29,038	31,840
HOUSEHOLDS	7,607	8,871	10,764	12,198
FAMILIES	6,714	7,400	8,324	9,034
MED. FAMILY SIZE	3.49	3.02	3.10	3.05
PER CAPITA INCOME	\$3,259	\$7,603	\$17,166	\$25,592
MED. FAMILY INCOME	\$12,267	\$25,635	\$45,695	\$63,194
MED. HOUSEHOLD INCOME	\$11,311	\$20,849	\$40,683	\$54,656

SOURCE: U.S. Census 1970-2000

As family size has decreased, all income categories have increased. In the past decade median family income has increased by 38.3 percent, median household income by 34.3 percent, and per capita income by 49.1 percent. Each of these three income categories are higher than those of the State as a whole. In addition, median income in Cumberland has increased at a

higher rate than the State.

Spatial Distribution of the Population

This data is concerned with the geographic settlement patterns of the Town's population and the changes that are occurring as a result of residential growth. The spatial distribution of Cumberland's population has changed in recent years. While the Town's population has grown in each of the past three decades, certain areas of the Town have seen population decreases, while others have grown at a rate much faster than that of the Town as a whole. Table II-5 shows the spatial distribution of Cumberland's residents among its six census tracts for 1970 through 2000, Figure II-I shows the location of these tracts.

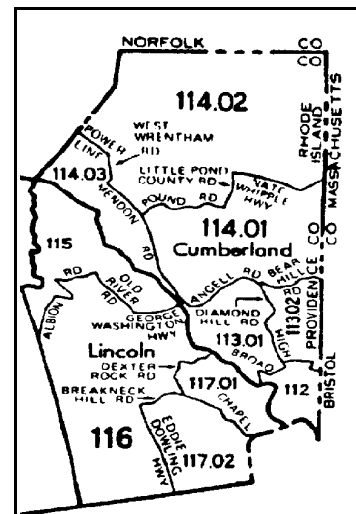


Figure II-1 Census Tracts

Table II-3 Geographic Distribution of the Population

CENSUS POP	1970 POP	1980 CHANGE	% POP	1990 CHANGE	% POP	2000 % CHANGE	Tract
112	5,867	5,622	-4.2%	5,642	0.4%	5,762	2.1%
113.01	4,092	3,770	-7.8%	3,640	-3.4%	3,811	4.7%
113.02	3,489	3,387	-2.9%	3,803	12.3%	4,002	5.2%
114.01	5,997	6,710	11.9%	6,492	-3.2%	7,388	13.8%
114.02	2,585	2,843	10.0%	3,669	29.1%	3,870	5.6%
114.03	4,575	4,737	3.5%	5,792	22.3%	7,007	21.0%

SOURCE: U.S. Census of Population: 1970-2000

The population in Census tracts 112, 113.01, and 113.02 have generally grown at a slow rate or decreased in population. Conversely, tracts 114.01, 114.02 and 114.03 have shown overall growth faster than the Town's average rate of population increase.

Table II-6 Population Density

The census tracts with declining populations are located in the more urbanized southern sections of the Town (bordered to the north by Angell Road and Bear Hill Road, to the west by the Town of Lincoln and to the east by Bristol County, Massachusetts). The three census tracts which have exhibited the most growth were all in the northern, more

CENSUS TRACT	TOTAL ACERAGE	POPULATION DENSITY			
		1970	1980	1990	2000
112	788	7.9	7.6	7.2	7.3
113.01	1,703	2.4	2.3	2.1	2.2
113.02	1,257	2.8	2.7	3.0	3.2
114.01	4,524	1.4	1.5	1.4	1.6
114.02	7,726	0.4	0.4	0.5	1.6
114.03	1,858	2.5	2.6	3.1	3.8
TOTAL/AVG	17,856	1.5	1.5	1.6	1.8

SOURCE: U.S. Census of Population: 1970-2000

rural portion of the Town (to the north of Angell and Bear Hill Roads). The suburbanization of Cumberland, particularly during the mid- to late-postwar period, is characteristic of the settlement patterns of ex-urban communities throughout New England and the northeast. As a result of this population shift within the Town, the density (persons per acre) has decreased in the southern half of Town and increased in the northern half, as shown in Table II-6.

Natural Increase

The population's natural increase, or surplus of births over deaths, is a measure of historic trends and future growth potential. There was a significant decline in natural increase during the 1960's and early 1970's. Between 1980 and 1990 there was slight growth in natural increase, probably caused by a recovery in the local birth rate since 1980 and stable mortality rates; the highest number of resident births occurring in that decade was 348 (in 1988). Natural increase continued to grow in the 1990s: in 1991 natural increase reached 126 persons, the highest point in the past 30 years. This measure remained over 100 persons per year throughout the first half of the 1990s; more recent data is not yet available.

Estimates from the 1991 Plan

Near term forecasts are defined as short term (three to five year) projections that depict probable changes in both the size and composition of the population. Ordinarily such near term forecasts are not undertaken as part of a long-range Comprehensive Plan.

However, the original Comprehensive Plan was written at the end of the decennial census period, thereby making short-term forecasts necessary to establish approximations of demographic conditions at that time. Without the Census as a source of detailed population data it was necessary to rely upon substitute information provided by several independent sources, including the CACI, Inc. Demographic and Income Forecast Report; State of Rhode Island, Department of Administration, State Planning Council, Planning Division, Population Forecasts; Town of Cumberland, Department of Public Schools School Facilities Need Assessment; and New England School Development Council (NESDEC) Community Enrollment Forecasts.

Socio-economic Indicators 1980 to 1995 - Table II-7 documents the near term projections and estimates of 1990 population composition developed by CACI, Inc, along with 1990 Census data. Near-term projections and estimates of population composition forecasted several significant demographic shifts would take place by 1995 in Cumberland. CACI's estimates of 1990 statistics were generally less than true values. As their short-term forecasts were based on the estimated 1990 values, the short-term population projections were also understated.

Table II-7 1990 Population Estimates

INDICATOR	1980 CENSUS	1990 ESTIMATE	1990 CENSUS
POPULATION	27,069	28,437	29,038
HOUSEHOLDS	8,871	10,121	10,764
FAMILIES	7,400	8,046	8,324
AVG. HOUSEHOLD SIZE	3.02	2.78	2.68
PER CAPITA INCOME	\$7,603	\$13,610	\$17,166
MED. FAMILY INCOME	\$25,635	\$42,613	\$45,695
MED. HOUSEHOLD INCOME	\$20,849	\$35,660	\$40,683
MEDIAN AGE	33.8	36.3	36.7

SOURCE: U.S. CENSUS

The first major change projected was an increase in the number of households at a rate significantly higher than the increase in the size of the population. The estimates used for 1990 indicated that the population had grown by 5.2 percent since 1980, while over the same period it was estimated that the number of households had increased by over 14 percent. The CACI study underestimated both the 1990 population and number of households: census data for that year showed that the population had increased by 7.3 percent while number of households increased by 21 percent over the ten year time-frame. CACI's forecast also under-estimated the increase in number of families: increase in number of families from 1980 to 1990 was estimated at 8.7 percent, while actual increase was 12 percent. Although rates of increase of population, households, and families were underestimated by this study; the conclusion that the majority of growth

in Cumberland was occurring in the form of non-family household formation, possibly resulting from occupancy by single persons or unrelated persons that do not consider themselves a traditional family unit, was valid. However, while on average household sizes are smaller the number of families with children has also increased, as demonstrated by the increase in school enrollment over the past decade.

The 1991 Plan predicted that median age would likely exceed 38.6 years by 1995. While no data is available for 1995, as of 2000 Cumberland's median age had exceeded 38.6. The original Plan included predictions on changes in age composition of Cumberland's population; these forecasts cannot be directly compared to Census data as different age categories were utilized. However, general trends predicted by the 1991 Plan can be analyzed. The Plan predicted that the total size of the population older than 65 years and the proportion of the total population over 65 would increase, which would likely have an impact on the demand for both services and housing. While there has been an increase in this age group, the percentage of the population that is 65 or older has remained stable at approximately 20 percent. The 1991 Plan cited data indicating significant decrease in the overall proportion of the 0-17 age group, from 37 percent of the total population in 1970 to 26 percent of the total population in 1980, and 18 percent of the total population in 1990. While the younger age categories did decline until 1990, this age group still made up approximately 22 percent of the population in 1990 and has increased over the past decade.

The other major trend identified in the 1991 Plan were increases in income levels from 1980 to 1990. These forecasts were generally correct, however, increases were greater than estimated: median household income increased by 95 rather than 70 percent, average family income increased by 78 percent while the forecast was for 64 percent. Similarly, estimates of income in the State as a whole were also less than actual increases. While the Plan estimated that Cumberland's 1990 median household income was approximately 26 percent greater than the statewide median, 1990 Census data shows that Cumberland's median income in 1990 was only 20 percent greater than the Statewide value.

Near Term Forecasts of School Age Population - The 1991 Plan documented the results of four independently prepared estimates of the size Cumberland's school age population from 1990 to 1996. The firm of KLQ of Walpole, MA, predicted that enrollment levels in grades K-12 would be 4,796 by 1995, an increase of approximately 17 percent. True

enrollment figures for 1995 were only slightly less than this estimate (4750 students). This was the most accurate estimate included in the 1991 Plan; the NESDEC estimate showed a greater number of students, while CACI, Inc. and the Rhode Island Planning Council underestimated enrollment. KLQ's estimate for the year 1999 placed the K-12 public enrollment at 5,229, or an increase of approximately 28 percent over 1990 levels. In fact, 5,135 students were enrolled in Cumberland High Schools in 1999; this still represents a significant increase in the number of school children. Between 1990 and 2000 enrollment in Cumberland Public Schools increased by 843 students.

Long Term Forecasts - The purpose of long-term population forecasts is to provide a basis for long-range policy considerations, particularly those involving the development of infrastructure and major capital improvement programs. The planning interval specified is a maximum of 20 years, in this case, to the year 2010. Two sources for long-term projections were used. The first projections were developed by the Rhode Island Office of State Planning. The second set of projections were developed internally by Maguire Group, Inc. (the private firm hired to assist the Town with writing the 1991 Comprehensive Plan), and were based on the relationship of housing development to population change. The latter set of estimates used historic housing production and occupancy trends which were translated into the population impacts of various build-out analyses. It should be pointed out that the accuracy of long-term projections diminishes as the planning interval increases. For this reason the long term estimates are taken only as general indicators of overall population growth and are not recommended for demand estimates that require cohort specific projections. This stipulation is made despite the fact that certain sources, such as the Rhode Island Department of Administration, Division of Planning, provide cohort specific projections up to 30 years into the future.

The alternate forecast prepared by Maguire Group was based on the probability of future housing development and on projected occupancy patterns. Between 1960 and 1990, the annual level of housing production in Cumberland was approximately 184 units per year. This annual average was believed to be somewhat skewed by the development boom of the 1980's, which saw annual production of over 300 single family and condominium units during certain years of expansive growth. The long-term growth scenario was proportionally reduced in the belief that the high levels of housing construction of the late 1980's would be repeated in the foreseeable future. Given the market conditions, environmental constraints and a regional over-supply of housing at that time, it was assumed that annual production level would range from 75 to 100 housing units

maximum. However, both long-term estimates cited in the 1991 Plan underestimated population growth and number of households. Population estimates for 2010 ranged from 29,656 to 31,740, these estimates are less than Cumberland's 2000 population of 31,840. Estimates of the number of households in Cumberland in 2010 are likely more accurate: 1991 estimates for 2010 ranged from 12,392 to 12,900; as of 2000 there were 12,198 households in Cumberland.

3. Population Forecasts

In order to adequately plan for Cumberland's future, whether for providing additional facilities and services or by developing ways to limit and guide growth, it is necessary to have some indication of how fast and how soon population growth will occur. Therefore, this section includes near-term population growth for the Town of Cumberland.

Short-term forecasts

Although the Rhode Island Statewide Planning Program has as of yet not developed population forecasts based on the Rhode Island Census, it is possible to forecast near term population levels for the Town of Cumberland. Two methods of forecasting are used: extrapolation from recent population growth, and estimates of new residential building permits.

As was noted in the previous section, between 1990 and 2000 Cumberland's population grew from 29,038 to 31,840 people. This corresponds to an average growth of 280 residents per year. Assuming population growth will remain constant in the near future, the population forecast for 2010 is 34,640, or an additional 2,800 residents over the 2000 population.

The above forecast assumes growth will remain at the same level as in the 1990-2000 time period. However, Cumberland has recently issued a cap on building permits, limiting their issuance to 100 per year (since 1996 yearly building permits have ranged from 105 to 197). This cap will remain in place until a more comprehensive plan for managing growth in Cumberland is devised. Using an average of 100 new homes per year, and an average occupancy of 2.59 (from Census 2000), Cumberland's population will be 2,590 greater than

in 2000, for a total population of 34,430.

Both of these forecasts suggest that substantial growth will occur in the near future. Unless proactively managed, this continued growth will continue to stress the Town's infrastructure and facilities, as well as negatively impact the Town's suburban/rural character.

Public School Enrollment

While detailed population forecasts for Cumberland as a whole based on Census 2000 data have not been developed as of the writing of this 2003 Plan, L.A. Torrado Architects conducted a forecast of short-term public school enrollment as part of its Facilities Plan. The forecast is based on the Cohort Progression method, which utilizes a series of progression ratios which are calculated as the percent of students in a particular grade who enroll in the next grade the following year. Table II-8 summarizes the L.A. Torrado's estimate of 2005-2006 Cumberland Public School enrollment by grade, compared with 2000-2001 actual enrollment figures. As the table demonstrates, while some grades show a decrease in enrollment, overall enrollment is expected to increase by 371 students over the five-year period.

Table II-8 Public School Enrollment

GRADE	2000-2001	2005-2006	Additional Students
UNGRADED	191	199	8
PRE-K	84	98	14
KIND.	384	356	-28
1	396	381	-15
2	372	403	31
3	399	367	-32
4	368	389	21
5	425	446	21
6	403	437	34
7	388	402	14
8	385	436	51
9	398	419	21
10	380	469	89
11	340	419	79
12	331	395	64
Total	5244	5614	371

Source: L.A. Torrado Architects

Build-out Analysis

The results of three build-out analyses were included in the Land Use Element of this Plan. These analyses estimated Cumberland's population once all available land was developed. These estimates ranged from approximately 38,200 to 41,200. Based on the

short-term population forecasts above, build-out may occur within the next 20-25 years. This Comprehensive Plan outlines the strategies that will be used to ensure that future development follows a well thought-out course and maintains Cumberland's character.

C. ISSUES IDENTIFICATION

Cumberland has witnessed significant shifts in the size and composition of its population since the turn of the century. From a low point in the 1970s, the rate of population growth has steadily increased. In addition, there have been significant shifts in the age distribution of the population. The median age and proportion of residents over the age of 65 have increased steadily. The younger age groups declined between 1970 and 1990 and have since increased. The number of households has grown at a greater rate than both the total population and the number of families; this trend is likely to continue, with family and average household size continuing to decrease. It is expected that an aging population of increasing affluence will have higher expectations for the level of public services that the community provides, while growth in the number of school-age children will necessitate increased personnel and facilities. Cumberland's population is expected to continue its high rate of increase unless specific strategies for growth management are created and implemented.

III. HOUSING

A. INTRODUCTION

Cumberland is a community that respects property rights and wishes to see the value of its properties, based on aesthetic considerations and public services, increase. It is within this context that this Housing Element is presented.

The dynamics of the New England housing market, particularly the influence of demand from the Providence and Boston metropolitan area, continue to have profound impacts on the supply of and demand for housing in northern Rhode Island and particularly Cumberland. This, coupled with the resurgence of housing and economic activity in the Boston area, has significantly altered the affordability and occupancy of housing in much of Rhode Island. The objectives of this Housing Chapter are as follows:

- To present a profile of the housing market in Cumberland in terms of changing patterns of supply and demand, emphasizing the impacts of market shifts on housing affordability, availability and accessibility.
- To identify existing and planned housing programs and policies and their relationship to community housing needs.
- To identify the most pressing issues and concerns that confront Cumberland's housing market.
- To prepare recommendations for housing policies and strategies which the Town might adopt in order to promote equitable access to housing.

The Housing Chapter is organized into five sections, each focusing on specific aspects of past, current and future housing information as follows:

- **Housing Supply** - The analysis of housing supply emphasizes the prevailing housing stock, its past trends, recent growth and costs. This is accomplished through a discussion of residential development as measured by the type, quantity and location of residential construction; a description of the supply of

public housing in Cumberland; and a discussion of the physical condition of the housing stock.

- **Housing Demand-** The assessment of housing demand centers around a review of historic and current patterns of occupancy, ability to pay for housing and the socio-demographic characteristics which are unique to Cumberland. This process includes an analysis of housing tenure characteristics; an assessment of household income; an analysis of affordability in the owner-occupied and residential rental market sectors; and an assessment of the current and future demographic demand for housing.
- **Housing Programs and Policies** - This includes an inventory and description of the existing or planned housing programs and policies and their focus and strengths in terms of meeting the housing needs of the Town of Cumberland.
- **Housing Issues and Implications** - The synthesis of the data collection process is designed to produce a conceptual framework for the development of policy recommendations.
- **Recommendations** - The final step in the comprehensive planning process is the development of programmatic and policy responses to the needs as addressed and stated by the identification of housing issues and their implications. The most pressing and important issues were selected and translated into community goals. Through a collaborative process the community has developed specific policies and strategies for promoting equitable access to Cumberland's current and future housing stock.

Appended to the end of this section are housing, demographic and socio-economic data from the U.S. Census 2000. Unless otherwise cited, all quantitative information contained in this element is based on the Census.

Originally developed as part of the Comprehensive Plan that was adopted by the Town in 1991, this element has been updated with data from the U.S. Census 2000 and as a result of public workshops held in the winter and spring of 2003. These workshops, duly advertised, were held on January 23rd and 30th, February 6th and April 26th, 2003. The

Planning Board acting in its capacity as the Town Comprehensive Plan Committee held a Public Hearing on this updated Chapter on May 12th, 2003.

State Planning Act Requirements

According to the R.I. Comprehensive Planning and Land Regulation Act, the Housing element “shall consist of identification and analysis of existing and forecasted housing needs and objectives including programs for the preservation, including, but not limited to, the preservation of federally insured or assisted housing, improvement and development of housing for all citizens. The housing element shall enumerate local policies and implementation techniques to provide a balance of housing choices, recognizing local, regional, and statewide needs for all income levels and for all age groups, including, but not limited to, the affordability of housing and the preservation of federally insured or assisted housing. Thee element shall identify specific programs and policies for inclusion in the implementation program necessary to accomplish this purpose.

The Act also requires consistency with State Guide Plan Elements:

- 110 Goals & Policies
- 421 State Housing Plan

B. INVENTORY

1. Housing Supply

Trends in Residential Development

Between 1940 and 1980 Cumberland's housing stock increased by over 200 percent. The greatest increases occurred during the postwar development boom that affected most of Rhode Island. More contemporary statistics show a moderate level of increase but one that still surpasses the average pace of development in Providence County and in the State. Between 1970 and 1980, Cumberland, saw growth of approximately 17 percent. Between 1980 and 1990, impacted by the housing boom of the mid to late 1980's, Cumberland's housing stock grew by 22.6percent. During the period 1990 through 2000

Cumberland's housing stock increased by nearly 12.1 percent. Cumberland's housing stock in the year 2000 consisted of 12,572 units. It should be noted that as a result of a high number of building permits issued in the late 90's (142 in 1997, 148 in 1998, 197 in 1999, 114 in 2000) coupled with the Town inability to continue to provide services at this growth rate, a temporary building cap was put in place in June 2002. The cap of 25 building permits per quarter has allowed the Town to study the growth pressures and to begin determining how to better manage the growth.

Type of Housing Supply

According to the U.S. 2000 Census, over 68 percent of all homes in Cumberland were single detached units. In addition, over 77 percent of all units were shown as owner occupied. The Town's housing stock in the year 2000 consisted of 8,543 single family and 4,029 multi-unit residential structures and residential condominiums.

The Location of Housing Production

The geographic distribution of new housing in Cumberland is a major consideration in the analysis of future housing needs and development potential. To describe the locational trends it was first necessary to establish geographic units or districts. This was accomplished by dividing the town into twelve districts that loosely correspond to historic neighborhood boundaries. The new districts are more precisely delineated than the old neighborhoods and are deliberately designed to conform to assessor's plat boundaries. Figure III-1 illustrates the planning districts that are referred to in the following overview of residential development in Cumberland that took place since 1980. This list does not include all projects but does identify the majority of major residential projects:

Valley Falls - This neighborhood saw no significant residential development between 1980 and 1990, and only a few minor subdivisions since.

Berkeley - Like Valley Falls, Berkeley is one of Cumberland's older, denser villages. This neighborhood saw no significant residential development during the 1980's, but in the last few years has seen huge growth as a result of two subdivisions: a Planned Unit

Development resulting in 60 residential units is currently under construction and a 300 lot subdivision.

Monastery Heights - Since 1980, 150 to 200 single-family units have been constructed. Sewer extensions in the neighborhood have permitted in-fill development on existing lots. However, this area has seen very few residential subdivisions in recent years.

Ashton - Approximately 50 single-family units have been built in the Ashton neighborhood primarily in the form of new subdivisions and extensions of existing subdivisions. Examples are: Meadowbrook, Robins Crown and a subdivision at Cedar Way and Barberry Road. In the late 1990's and early 2000, there have been no proposals for subdivisions in this area.

Arnolds Mills - The Arnolds Mills area has seen some of the greatest growth in Cumberland. 287 units have been built in subdivisions, condominiums and as in-fill development along existing frontage. Major projects were: Bear Hill Estates, 60 single family units built in 1985; Friars Green, 94 condominium units built between 1986 and 1990; Waterman's Farms, 5 houses; Wyoming Drive, 12 units; 20 in-fill units along Abbott Run Valley Road; Apple Ridge, 15 condo units; Frederick Lane, 10 units built in late 80's; Rolling Green, 10 single family units built in late 1980's; Hillside Road, 12 in-fill units; East Valley Drive, 21 lots; and Miller's Brook Drive, 18 lots. Housing units built in Arnold's Mills are priced in the \$250,000 to \$475,000 market making these properties some of the highest priced housing in Cumberland.

Thompson Hill - Approximately 40 units were built in the last ten years in the Thompson Hill neighborhood. The Fieldside subdivision accounted for 20 single family units built in the late 1980's. These properties were priced in the \$250,000 to \$300,000 range. Since the 1980's, subdivision growth in this area has slowed.

Lippitt Estates - The development in the Lippitt Estates neighborhood was limited to 15 to 20 in-fill units and a minor 3-lot subdivision. Some lots are served by an old undersized water main. New dwellings cannot be tied in to this utility. The neighborhood has many pre-existing non-conforming vacant lots.

North Cumberland - 92 units have been built in this neighborhood since 1980. Some of these are in relatively expensive projects such as Duncan Duff, six units built in the late

1980's which are priced in the \$400,000 range, and Evans Farm, consisting of 12 units in the \$300,000 range plus and built in the mid- to late-80's. The late 1980's saw two minor 2 and 3 lot subdivisions. The remaining development consisted of in-fill projects along Burnt Swamp Road (6 units); in-fill development along Tory Road (6-8 units); 10 in-fill projects on Tingley Road; and condominium projects on Fisher Road and Ski Valley (the latter containing 50 condominium units).

Diamond Hill - The 1980's saw the construction of approximately 50 units in the Diamond Hill neighborhood. Of these, nine units were in-fill projects along Diamond Hill Road, Nate Whipple Highway and Pound Road. Ten units were added in the late 1980's in the form of a small subdivision off Staples Road and 20 units were developed as extensions to the existing subdivisions of Friars Green and West Brook Road. Also, ten units were constructed as in-fill projects along Tower Hill Road. The 1990's and early 2000 saw the creation of another 59 lots. Besides several minor subdivisions involving 2 or 3 lots at a time, the larger subdivisions include the 29-lot Longbrook proposal on Little Pond County Road and the 13-lot Tower Hill Estates Subdivision.

Grants Mills - 53 units were built in the Grants Mills neighborhood between 1980 and 1989. 20 units were built in the mid to late 80's in the Grants Mills Estates subdivision, six units were built in the Georgiana Village subdivision and ten units were constructed in the mid 1980's in Dear Brook Way subdivision. The remainder of development was in the form of in-fill projects along Pine Swamp Road (seven units) and West Wrentham Road (eight to ten units). Subdivision activity picked up again in the year 2000, with another 7 lots as part of Lawrence Estates, 5 lots off of Pine Swamp Road and a few smaller subdivisions.

Ballou District - Housing construction in the 1980's was limited to 16 single-family homes in in-fill projects built along Elder Ballou Meeting House Road. There has been very little subdivision activity in this area.

Cumberland Hill - This neighborhood saw the vast majority of housing production during the 1980's. A total of over 860 single family detached and condominium units were constructed in Cumberland Hill during this period. Some of the largest subdivision projects were: Forest Hills subdivision, 100 units started in 1987 with continuing development priced in the \$120,000 to \$140,000 range to be RI Housing eligible; Hunters Run subdivision off Pound Road with 32 units built in the late 1980's and priced in the

\$300,000 range; Cumberland Country Club with 70 units priced in the low \$200,000s; and Avon Plat with 25 units that were started in the mid 1980's; a 12 unit extension to the Farm Drive subdivision developed in the mid to late 1980's; and a ten unit extension to the Forest View subdivision. Condominium projects were: Four Elms with 144 units built in 1985; Maple Wood with 186 units started in 1979 and recently sold out; Rose Wood with 50 units started in 1988; Brookview and Brookside which are each four unit condominiums; Valley View, 165 units; Hillside, a 12 unit project; Leach Street condominium with six units; and Victorian Court, a 29 unit project which is still under construction. The remainder of the development, an additional 20 units, was in the form of in-fill projects along Clark Road and Kay Street. Subdivision activity continued in the late 1990's and early 2000 with the creation of another 31 new residential lots.

Approximately 85 percent of the construction projects listed above took place in neighborhoods that are located north of route I-295 where there is limited water and sewer availability and the environmental concerns are greater.

Subsidized Housing

Public housing in Cumberland is centered on One Mendon Road, a high-rise public housing development for the elderly with 176 units administered by the Cumberland Housing Authority (CHA). In addition, there are 88 units designated for elderly residents under the Department of Housing and Urban Development (HUD) Section 1 New Construction program at One Flat Street, called Riverside Village. Apart from the two high-rise developments, there is a variety of subsidized housing currently available in different locations in Cumberland. While the various methods of funding such housing are taken advantage of, they currently only offer rental opportunities.

Not included in this above table, because they do not count towards Cumberland's affordable housing stock, are the 355 Section 8 vouchers that are available to the Town's low and moderate-income residents.

Table III-1 Low and Moderate Income Housing

Classification	Name	Type	Rent/Own	Location	# Units
Elderly	Riverside Village	CAP	Rental	1 Flat Street	88
	Jenks Woods	HUD 202	Rental	25 Flat Street	61
	1 Mendon Road I and II	Public Housing	Rental	1 Mendon Road	176
	Bear Hill Village	RIH Section 8	Rental	Bear Hill Road	125
	Chimney Hill	RIH Section 8	Rental	2065 Mendon Road	130
Family	14-16 Main Street	RIH Home	Rental	Lonsdale	11
		RIH Tax Credit	Rental	Lonsdale	32
Group Home Beds					44
Transitional	House of Compassion	Trans. Housing	Rental	Mendon Road	7

Although Cumberland does not yet meet the State's minimum goal for affordable units, it is proactively working towards that goal. The 719 affordable units as identified in the table above represent 5.72percent of Cumberland's housing stock in 2003. (According to the State's definition, a unit is affordable if Federal or State funds are used to subsidize the cost of the unit.) Valley Affordable Housing (the private, non-profit arm of CHA) is currently rehabilitating another 32 units in Lonsdale. As of this writing, all the funding is secured and construction is nearly complete on the Lonsdale project. The next project Valley Affordable Housing plans on tackling is the mill village in Berkeley. On behalf of Valley Affordable, the Town has requested CDBG funds to rehabilitate another 30 units in Berkeley. Valley Affordable Housing's success with acquiring existing housing stock and then rehabilitating and making it available as affordable housing is a model that the Town would like to see continued. Other areas that would lend themselves to the creation of affordable housing are as follows:

- the existing mill housing in Ashton Village (approx. 50 units)
- the existing rental housing in Berkeley on Mendon Road (the area between Davenport's Restaurant and Lynch construction) (approx. 50 units)
- the conversion of the Ann & Hope and Building 19 commercial warehouses in existing mill buildings into Public Housing, possibly affordable assisted living

which CHA believes the Town needs more of (approx. 100 units)

- in Valley Falls on and near Broad Street there are quite a few solid triple decker buildings (between Town Hall and Ann & Hope) that would lend themselves to conversion into permanently affordable units (approx. 30 units)
- behind Valley Affordable Housing on Blackstone Street there are also several existing buildings that could be converted into affordable housing (approx. 10 units)
- in light of the lack of affordable ownership opportunities, Valley Affordable Housing is also considering partnering with a private company to build a mix of market rate and affordable houses on one of the parcels associated with the Vadenais Farm near the Town border with Woonsocket (approx. 30 units)
- the Town-owned Epheta House property could accommodate approximately 10 units for the disabled

Age of the Housing Stock

The age of Cumberland's housing stock is described by means of establishing the number of housing units as reported in previous U.S. Census reports. The tables at the end of this element summarize Cumberland's housing supply based on the year the structure was built. The data reflects the previously mentioned post-war development boom in that 45percent of the stock was built prior to 1959.

Condition of the Housing Stock:

The physical condition of the housing stock had been assessed in 1990 through field surveys of 137 residential properties randomly selected for inspection and by interviews with the Town Housing Code Enforcement Officer and Director of the Department of Planning and Community Development. The purpose of the field inspections was to determine the general condition off the Town housing supply and the possible need for additional focus on physical condition as a policy issue. The survey found that the majority of residential properties are in acceptable condition. Isolated exceptions were found usually in the older neighborhoods. The question of physical condition, specifically those cases of deterioration that were observed during the field survey, was discussed with the Town Planner and Code Enforcement Officer. The consensus was that the

magnitude of the condition problem was minimal and was well within the scope of existing rehabilitation programs. Discussions with Town staff in 2003 suggest that the physical conditions have generally not deteriorated since 1990. The Town's CDBG Housing Rehab Program is positively impacting housing conditions. A secondary indicator of condition is the U.S. Census statistic pertaining to the lack of complete plumbing fixtures. The 2000 Census reported that 49 units (or .4percent of the total housing stock) lacked complete plumbing. The same statistics for Providence County were 1.0percent of all units.

Residential Resale and Rental Markets

The development boom which began in the mid to late 80's was in part precipitated by a regional restructuring of the residential real estate market. This restructuring brought about abrupt increases in market value, which caused a regional crisis in housing affordability. The degree to which local costs are affected by regional market dynamics is a serious planning concern for both ownership and rental affordability. Cumberland's affordability question is not unique in the region. The median sales price of an existing single-family home increased by 147.6percent between 1979 and 1989. There is some evidence that the escalation in resale values is abating. During 1990, the median selling price of existing single-family homes in Cumberland was \$143,500 and in 2000 it was \$144,800, a change of only 1percent. However, much more remarkable is the selling price of an average acre of vacant land zoned for residential purposes with public water and sewer availability: \$140,000. It is the price of land that will be driving housing costs up. The market conditions that caused escalation of residential prices in the 80's had similar effects on rental costs. The median rents for apartments in Cumberland have increased from \$430 in 1990 to \$520 in 2000.

2. Housing Demand

Housing Occupancy

The tables at the end of the Chapter provide a summary of housing tenure characteristics for Cumberland and the State from the 1990 and 2000 U.S. Census. These figures shed light on the composition of the housing market in terms of the ratio of owner-occupied to

rental units and the vacancy status of housing units. Of the 12,198 occupied units in Cumberland, 76.7 percent were owner-occupied. The remaining 23.3 percent were rental units.

The Census also shows that the vacancy rate for both owner-occupied and rental units decreased between 1990 and 2000. The vacancy rate for Cumberland was 1.3 percent of owner-occupied units in 1990 as compared to .4percent in 2000. There is greater movement with the rental units, although this statistic also points to higher demand: 6.4percent vacancy rate in 1990 as compared to 4percent in 2000.

Housing Affordability

The cost of housing continues to raise concerns for its affordability to the residents of Cumberland. One issue that keeps coming up is the lack of affordable housing for Cumberland's young adults who recently graduated high school or college and who wish to live in Town. The number of households in the higher income brackets increased along with an increase in the median household income. In 2000 Cumberland's median household income was \$54,656, an increase of 34.3 percent over the 1990 level of \$40,683.

Despite the increase in the median household income, the cost of housing has increased at a greater rate, thereby exacerbating the affordability issue. As shown by the Census tables, between 1990 and 2000, the median monthly costs of an owner occupied home in Cumberland rose by 38.6 percent. Median gross rents rose by approximately 21percent, with over 23percent of all renters paying more than 35percent of their household incomes towards rental costs. The 1980's saw more drastic differences between incomes and housing costs, however, housing affordability still is an issue especially to existing residents and especially to first time home buyers.

Rising rental costs are believed to have an even greater impact on affordability because the increases are spread throughout the rental housing stock in a relatively short time period. Housing resale prices, on the other hand, are limited in their direct impact by the small number of sales transactions relative to the owner occupied housing stock and the tempering effect of built up equity enjoyed by buyers who are already home owners. The primary impact is seen as more directly related to the entry level or first time buyer. As compared to renters, homeowners are paying less of their incomes to their housing costs.

More specifically, 14.7percent of homeowners in the year 2000 are paying more than 35percent of their incomes on their housing costs.

Current and Short Term Demand

The starting point for the analysis of housing demand is the historic and projected relationship between population change and housing. This relationship, while not the exclusive determinant of housing needs, is an important indicator of the community's future housing demand. The relationship between demographics and housing is by no means constant. Since 1940 the rate of population increase has lagged behind the growth of the housing stock. In 1940 the occupancy rate (population divided by housing units) was 3.63 persons per unit. By 1980 this rate had dropped to 2.96 persons per unit. According to the 2000 U.S. Census, Cumberland's occupancy rate is 2.61 persons per unit. While the level of overall occupancy seems to be in decline, there are other occupancy phenomena that indicate an increasing demand by specific demographic groups. Four separate demand factors, related to income, age and household composition, are discussed in this section: low income occupancy, low to moderate-income occupancy, elderly and disabled occupancy, and family occupancy.

Low Income Occupancy - The principal indicator of low-income occupancy is the size of the population living on incomes below the poverty level. Between 1970 and 1980 both the number and proportion of families with incomes below poverty level increased. However, this trend was substantially reversed between 1980 and 1990. In 1980, 284 families were designated as having incomes below the poverty level, a 28 percent increase over 1970. Between 1980 and 1990 the number of families below poverty level had decreased by 32 percent to 192 families, 2.3 percent of all families. But in 2000, this number jumped back up to 260 families or 2.9percent of all families in Cumberland. This group continues to face difficulties in finding affordable housing as a result of regional competition for a limited supply of market level rental units. This issue has been corroborated by the Cumberland Housing Authority and the Blackstone Valley Community Action Program (BVCAP) who report that waiting lists for subsidized units and other housing programs have increased markedly. According to the CHA, the total number of applicants for Section 8 (transferable vouchers and others) programs currently totals 776 households.

Low to Moderate Income Occupancy - The criterion used to define this occupancy category is based upon the relationship of community income statistics to its surrounding Metropolitan Statistical Area (MSA). The definition of low to moderate-income households is those reporting incomes below 80 percent of the MSA median household income. In 2002 Cumberland had 11,086 persons, or 34.8 percent of its total population, reporting incomes equal to or less than 80 percent of the MSA median according to the office of Community Affairs.

Elderly and Disabled Occupancy - The elderly and disabled population are special housing demand groups because of community concerns for their financial and physical capacity to remain as residents of the town. There continues to be a steady increase in the demand for housing by elderly residents. In 1990, 10.7 percent of all households were headed by a person over the age of 65. By 2000 this figure had increased to 11.2 percent. During this same period the proportion of the population that was over 65 years old had grown by 20.5 percent. Cumberland citizens over 65 years of age made up 14.6percent of the population in 1990 and 16percent in 2000. In 2001, there were 2,123 households receiving elderly property tax exemptions that are exclusively available to homeowners. Disabled residents (including those who are blind) receiving property tax exemptions totaled 32 in 2001. Waiting lists for elderly and other subsidized housing programs are another indicator of the growth in the elderly housing demand. As of May, 2003 there were 67 applicants waiting for housing at Cumberland Manor and 61 people on the waiting list for Riverside Village and 29 people waiting for housing at Jenks Wood Apartments.

Family Occupancy - The traditional definition of family occupancy provided by the U.S. Census is two or more related individuals of any age or income category living together in a single housing unit. For the purpose of this element, the use of the term "family" is focused on those indicators of local housing demand which describes the occupancy of larger housing units containing a greater than average number of bedrooms, i.e. occupied by families with children. The demographic indicators of family housing demand which are used in this element are the number of households that are classified as family households (two or more related individuals), and the size of the population below the age of 18 years (a surrogate indicator of family households with children). Clearly, Cumberland is changing. In 1990, family households accounted for 77.3percent of the total households while in 2000, family households accounted for 74.1percent of the total households in Cumberland. The number of non-family households are increasing and

currently make up 26percent of the households in Cumberland, a figure that has increased by nearly 30percent since 1990. These statistics are corroborated by the increasing number of condominiums and age-restricted development proposals.

Long Term Demand

The long term demand for housing is defined as the forecast of housing needs at the end of the 20-year planning period of the comprehensive plan, i.e. to the year 2010. The basis for the long-term housing projections is the long-term population estimates presented in the Demographics Element of the Plan. Because of the long-term nature of these estimates, they are presented as an aggregate population change over the next twenty years.

The Demographics Element presents a number of long-term population estimates including those published by the State Division of Planning. After comparing all available projections, the consultant in 1990 concluded that the best estimate of long-term population was 31,700 persons living in 12,900 households by the year 2010. In order for the Town to sustain this level of growth would require an increase in the housing stock of 17 percent with an annual production level of 75 to 90 units. However, 2000 U. S. census data indicates that Cumberland's population has already exceeded the projection of 2010 with a 2000 population of 31,840. The number of households as of the year 2000 totaled 12,198 and while not exceeding the consultant's projection, surely accelerating at a faster pace than anticipated. Faced with building permits nearly double that anticipated in 1990, a growth cap was enacted. Under the growth cap of 100 building permits a year, put in place by Cumberland's Town Council in 2001, projections maybe more certain, although exemption built into the ordinance will result in a greater unanticipated growth.

3. Housing Programs and Policies

Existing housing programs and policies can be categorized in a number of different ways depending on their focus, funding source and the governmental levels from which they originated or are ultimately implemented. Cumberland's present housing policy is manifested by a number of specific programs targeted at issues of affordability for special needs groups and preservation of the existing housing stock, particularly those structures

located in historic districts or designated as historic properties. Actually, there is some overlap between affordability and preservation in that the preservation programs include special incentives for low and moderate-income homeowners.

Affordability

Residential Property Tax Exemptions - The most widely used affordability programs are those involving property tax exemptions for designated homeowners. Tax Exemptions allow low and moderate-income people to remain in a home, rather than to enter the housing market. The exemption program that is used by the greatest number of homeowners is the elderly exemption. This exemption permits a \$7,500 reduction of the assessed value of residential properties owned by residents over the age of 65. In 2001, there were 2,123 properties receiving this exemption. Similar exemptions are available to homeowners who are either blind or 100percent physically disabled. Again, in 2001, there were an additional 32 properties receiving a \$7,500 reduction in their assessed value under this program. A program recently put into place involves allowing senior to defer payment increase in taxes till the time they sell their properties. This age and income restricted program is expected to become more popular with every year it is in place.

Rental Assistance Programs - The other focus of housing affordability programs is the direct subsidy and support of affordable housing for elderly and low-income residents. The programs described in the section on housing supply are funded through the HUD and administered by the CHA. There are a total of 580 housing units in Cumberland designated for elderly tenants and another 355 low-income renters are receiving rental assistance in the form of subsidized rents or rental vouchers as provided under HUD's Section 8 program.

CDBG Housing Rehabilitation Program and Other State Programs - The first major housing preservation program in Cumberland was the CDBG Housing Preservation Program. This program was funded through a \$153,000 Community Development Block Grant that made approximately \$105,000 available to homeowners in the form of direct grants and loans for major repairs and rehabilitation. The program required that rehabilitation projects in historic areas or projects designated as historic properties must conform to restrictions stipulated by the Rhode Island Historic Preservation Commission. The program has been modified since its inception to become a rehabilitation program for

low to moderate-income property owners. The properties must no longer be of historic value, rather this program helps stabilize Cumberland's housing stock in general. To date, over 50 existing homes have benefited from the CDBG Housing Rehabilitation Program. Rhode Island Housing's HOME program has also been instrumental in housing rehabilitation. Valley Affordable Housing has effectively made use of all the programs Rhode Island Housing has to offer.

Preservation

State of Rhode Island Income Tax Credit - Another program which is offered as an incentive for the rehabilitation of historic properties is the State's Historic Rehabilitation Income Tax Credit. This permits an income tax credit amounting to 10 percent of the cost of approved rehabilitation work up to an annual maximum of \$500 per tax year for a total of five years.

Cumberland Historic Rehabilitation Property Tax Credit - At the local level, similar incentives are offered by the town in the form of a property tax credit for restoration projects located within historic districts. The program permits a 20 percent property tax credit up to a maximum of \$450.

Cumberland Historic Preservation Revolving Loan Program - The newest local rehabilitation program is limited to historic properties. The Historic Preservation Revolving Loan Program provides low interest loans up to a maximum of \$9,000 on the basis of a 3:1 financing ratio which requires direct owner investment equal to 25 percent of the value of the rehabilitation project. For low-income homeowners who are unable to afford their 25 percent share of the project, the Town will provide a direct grant up to a maximum of \$3,000. For property owners who qualify as very low income, the town will waive the interest on the loan amount and provide a direct grant to cover the owner's investment share. The eligibility criteria for low income or very low-income status are determined by HUD income guidelines that vary according to family size. All rehabilitation work must be approved by, and comply with, the standards of the Rhode Island Historical Preservation Commission.

C. Findings

The following section is a compilation of the major findings of the housing research, data collection and analysis.

Housing Supply - Cumberland's housing stock continues to increase albeit at a slower rate than it did in the 1980's; it grew by a 12.1percent between 1990 and 2002. Based on the increasing number of subdivision applications, and waiting list for building permits, this number is expected to continue increasing unless subject to some growth management tool.

The vast majority of Cumberland's recent development occurred during the "housing boom" of 1985 to 1988, a four year period during which 1,404 units were constructed.

Of the 1,404 units constructed between 1985 and 1988, 709 were multi-family homes, reflecting a marked increase in condominium construction. However, the Town should expect to see more proposals to construct condos and age-restricted housing (usually over 55 years) as a result of a growing elderly population and reduction of family size.

Most of the recent residential development north of Interstate 295 has occurred in the neighborhoods of Arnold's Mills and Cumberland Hill.

New construction continues to be was characterized by several large condominium developments and expensive single-family homes. Most single family homes in the Cumberland Hill and Arnold's Mills neighborhoods range in price from the low \$200,000s to \$475,000.

The construction boom was paralleled by a restructuring in the residential real estate market resulting in significant escalation in housing costs both locally and statewide. Between 1979 and 1989 the median selling price of single-family homes rose by 147.6 percent. However, that escalation has since slowed. Between 1990 and 2000, the median price of a home rose by 1percent. The median price of a home in the year 2000 was \$144,800.

The restructuring of the housing market has also impacted the cost of rents. Between 1990 and 2000 the mean asking price for rents for an apartment increased from \$430 to \$520.

Cumberland's current subsidized housing inventory is 719 units or 5.72 percent of the total housing supply.

Housing Demand - The 2000 U.S. Census shows that Cumberland's housing stock is 75.5 percent owner occupied and 24.5 percent renter-occupied. These statistics have not changed appreciably since 1980 given that most of the multi-family development was in the form of owner-occupied condominiums.

The 2000 U.S. Census shows a town-wide residential rental vacancy rate of 4.0 percent, lower than the 1990 figure of 6.4 percent. Homeowner vacancy rates are even lower at .4percent in the year 2000.

Housing affordability has emerged as a regional issue during the 1980's. However, it appears that Cumberland's median family income is slowly catching up with increases in home ownership or rental costs, in that, income has increased by a greater percentage than the cost of housing between 1990 and 2000. Although more of a family's income is going towards paying monthly housing costs.

A decrease in the family size of the resident population indicates that Cumberland is experiencing significant demographic shifts similar to those affecting the New England region.

The demand for housing by low and moderate-income residents increased between 1990 and 2000 as evident by the increase in poverty status families, the increase in low and moderate-income families and, the number of families on waiting lists for subsidized housing.

The demand for housing by the elderly and disabled is increasing as evidenced by increases in the number and proportion of elderly and disabled residents; the number of residents receiving elderly and disabled property tax exemption and the number of elderly and disabled residents on waiting lists for public housing.

Housing Policies and Programs - Current housing policies in Cumberland fall into two categories: Affordability and Preservation. Affordability programs focus on residential property tax exemptions for the elderly and disabled, CDBG Housing Rehab loans and rental assistance programs for income eligible residents, and other programs funded through the U.S. Department of Housing and Urban Development and administered by the Cumberland Housing Authority. Preservation programs consist of the Cumberland Historic Rehabilitation Property Tax Credit and Cumberland Historic preservation Revolving Loan Program.

Responses to the Community Survey and Public Workshops of 2003 - A random survey of Cumberland residents was conducted during the summer of 1990 to determine attitudes related to the future of Cumberland. Portions of the survey were designed to elicit public opinion concerning the issue of housing. In all, the survey contained six questions that focused on housing.

The general response to the survey presented the view that there was adequate housing, sufficient residential land and that Cumberland has been growing at too fast a pace. Specifically, 64.7 percent of the respondents had the opinion that the Town was growing too quickly; 72.3 percent indicated that the Town should work to preserve its rural/suburban character; 54.8 percent felt that the Town already has sufficient housing; 77 percent would prefer a moratorium on condominium construction; 77.7 percent felt that no land currently zoned for residential or agricultural use should be rezoned for commercial use; and 60.4 percent did not want land currently zoned for agricultural use to be rezoned for residential development.

To summarize, the responses to the community survey's housing questions seems to suggest that the Town residents are concerned that the surge in growth, in the 1980's, if continued, would harm the rural character of the town and that steps should be taken to protect the rural character. This was manifested by generally unfavorable responses to questions concerning additional growth or zoning strategies that would encourage or permit significant development within the Town.

Public workshops and meetings during 2002 and 2003 suggest concern regarding residential growth in Town has only increased since 1990. More specifically, on January 30, 2003, workshop participants determined that affordable housing in Cumberland must

be in compliance with the State's low and moderate-income housing act and be based on the Town's available resources and ability to service development. Additionally, developers of affordable housing must respect the Town's continuing efforts to preserve land for conservation purposes. Affordable housing must be properly located and must meet the Town's goals at defined times.

Issues Identification

Growth Management - The strategic location of Cumberland in terms of its proximity to major cities and transportation routes is seen as a significant development force. At the same time, diminution of developable land will cause continued tensions between regional pressures for growth and local development constraints:

- Development sites north of Interstate 295 continue to be the most likely target for future development. However, this area is also the most vulnerable to environmental impacts of residential growth. Costs of public services in this area are extremely high because it is mainly outside of the current villages where services are already available.
- Cumberland's rural character is often perceived by developers as an indication that a large amount of land is available and suitable for development. This could result in speculative acquisition of vacant parcels and may ultimately lead to more confrontational pressures to relax environmental standards.
- Housing developers are likely to respond to the scarcity of available land and its high cost by developing more expensive projects for an affluent regional market.
- Cumberland and the region have a history of housing development aimed at a regional speculative market as opposed to development that responds to local needs.

Faced with numerous subdivisions and several large multi-family (rental and condominium) projects, the Town placed a cap on building permits in order to establish

methods by which to better manage growth and to try to keep residential growth at no more than 1 percent a year.

Community Standards - Cumberland has a tradition as a residential community with safe and attractive neighborhoods. However, the progressive development of vacant land, demographic shifts and residential market pressures could adversely impact the safety, appearance and accessibility of residential areas and individual housing units:

- Residential growth could cause localized increases in vehicular traffic.
- While the housing stock was found to be in relatively good overall condition, the large numbers of older residential units could pose future code compliance and rehabilitation problems.
- Demographic trends are likely to result in greater numbers of older renter and owner occupants who may be less able to cope with the maintenance and upkeep of their homes.

Housing Affordability: The market shifts of the late eighties have left their imprint on the entire statewide housing market. The direct local impacts of escalating market values has had, and will continue to have, varying effects depending on the type of occupancy, financial position and age of the housing consumer:

- Rental affordability appears to have been the most significantly impacted housing sector as evidenced by the 21 percent increase in median rents in Cumberland between 1990 and 2000.
- Increases in the cost of rental housing typically impact a segment of the population that is the most economically vulnerable such as those on fixed incomes and the elderly and the disabled.
- Existing homeowners are usually spared the direct effects of escalating resale prices while first-time and low-income buyers without an equity base are increasingly excluded from the resale and new home market.

- For many families, the escalating cost of entry-level resale homes will make continued rental occupancy the only viable housing option. This could have a dual effect of reducing the turnover and availability of rental units while, at the same time, increasing the overall demand for rental units.
- Demographic shifts have indicated that traditional family occupancy will constitute a decreasing proportion of the total housing demand which could result in an increasing rental demand amongst a more affluent and mobile renter market.
- An expanding rental market demand could encourage rental property owners to upgrade their units for marketing to the more affluent renter, thereby further reducing the available supply of affordable family rentals.

The Elderly and Disabled - The increasing median age of the population is attributable in part to an increase in the elderly age group. While census data on the disabled do not exist prior to the year 2000, we suspect that this too is a growing population. Indications are that this trend will continue, raising a number of associated planning issues:

- The demand for subsidized housing will increase. Waiting lists for elderly and disabled public housing have grown markedly in the last three years.
- Displacement of these residents could occur due to a lack of appropriate and affordable housing. A resurgence of the real estate market could exacerbate this condition with significant social and political implications.
- Elderly and disabled residents on fixed incomes are more vulnerable to rental market changes. This condition may worsen if regional trends of increasing demand for rental units among a younger more mobile population continue.
- Elderly and disabled home owners on fixed incomes face the challenge of maintaining properties.

D. Goals, Policies, and Recommendations

Goals and policies for the housing element have been developed on the basis of the empirical data inventory, projections and participatory research. The goals, initially identified in 1990 and reviewed and modified as necessary in 2003, are broad statements of the community's long-range housing objectives. Policies are action-oriented strategies intended to achieve the stated goals.

State Planning Act Goals

- To promote a balance of housing choices, for all income levels and age groups, and which recognizes the affordability of housing as the responsibility of each municipality and the state.
- To preserve existing government subsidized housing for persons and families of low and moderate income.

Cumberland Housing Goals

Goal HS.1 TO LIMIT ANNUAL RESIDENTIAL GROWTH TO NO MORE THAN ONE PERCENT. ALLOW GROWTH UP TO THE ONE PERCENT LIMIT ONLY WHEN IT CAN DEMONSTRATE THAT IT SERVES THE NEEDS OF THE COMMUNITY, PRESERVES AND ENHANCES CUMBERLAND'S ENVIRONMENTAL ASSETS AND DOES NOT OUTSTRIP THE TOWN'S ABILITY TO PROVIDE ESSENTIAL SERVICES.

Policy HS.1.1 Encourage residential development as extensions of existing neighborhoods and community areas.

Action HS.1.1.1 Ensure that new residential construction is in, or adjacent to, established residential villages or neighborhoods.

Purpose: Encouraging residential growth in Cumberland's established villages and neighborhoods will maintain the rural/suburban atmosphere identified by respondents to the Town community survey as a prime reason for their residence in the town. Preserving

the spatial integrity of the various neighborhoods of Cumberland through strict adherence to the Zoning Ordinance and Map will preserve the Town's existing character, while facilitating necessary residential growth to meet future demands for housing.

Policy HS.1.2 The consideration of new development should include local assessment for immediate as well as indirect impacts, including environmental, public facilities, cultural, etc.

Action HS.1.2.1 Continue implementing the residential site plan review process that requires evaluation of environmental impacts of large-scale residential projects

Purpose: To mitigate the negative environmental impacts of large scale residential development, the Town should continue to utilize its subdivision regulations to require minimum environmental performance criteria and impact Statements, including written reports and analysis for the Town review, to be provided by the developer of each new project.

Action HS.1.2.2 Require residential projects to provide all necessary infrastructure improvements, including off site drainage, pedestrian and vehicular routes, sanitary sewers and water extensions.

Purpose: By requiring developers to bear the costs of servicing their developments, the Town will place a lesser burden on the property tax base and force developers to contribute to the broader costs of development.

Policy HS.1.3 The allowable density of infill residential development should be consistent with the Zoning Map, surrounding integrity and character of existing abutting neighborhoods, and the technical requirements as dictated by prevailing environmental and public facility constraints.

Purpose: In order to both preserve the spatial integrity of Cumberland's urban neighborhoods and to provide a source for new affordable housing, some form of incentive mechanism may be required. This particular proposal is aimed at a relaxation of

the zoning restrictions such as setbacks, site coverage and height, in areas where the existing regulations inhibit the construction of infill residential structures. The incentives could favor the development of multi-unit residential structures provided that such development is consistent with the surrounding housing stock. This recommendation is viewed as an incentive for the housing industry to meet the growing needs for affordable rental housing and is targeted primarily at the Valley Falls neighborhood which has been a traditional source of affordable family housing in Cumberland.

Action HS.1.3.1 Review the Zoning Ordinance to ensure that infill residential development in established residential areas is consistent with existing densities and the Town's need for affordable housing.

Policy HS.1.4 Promote cooperation among all Town departments and commissions to protect sensitive built and natural areas threatened by commercial, industrial or residential growth.

Action HS.1.4.1 Establish a Housing Advisory Board consisting of housing advocates, realtors, Conservation Commission members, Historic District Commission members, residential builders, Council members and Town officials so that community housing policy, especially the Growth Cap, can be modified in response to changing market/regional conditions and personal agencies interested in developing land under the Comprehensive Permit process and others may be directed to appropriate locations.

Purpose: A comprehensive plan should be a dynamic document. In order for the goals and objectives of the plan to be achieved over the next twenty years, it will be necessary to have both concerned citizens and Town officials cooperate on the refinement of the policies and programs necessary to ensure adequate housing in Cumberland. A Housing Advisory Board could monitor housing trends, conduct research on market conditions and suggest policy options to the Town planners, council members and the Mayor. The Board should also continue studying the impact on infrastructure of the Town's 1% growth cap and possibly consider legislative initiatives such as impact fees, conveyance

fees, etc.

Action HS.1.4.2 Review land use controls to seek ways to encourage creative land planning concepts to preserve open space and environmentally sensitive areas not otherwise protected by local, State, and federal law.

Purpose: The Town's inherent environmental sensitivity is in potential jeopardy from unplanned residential growth particularly in the northern part of the town. The use of innovative site development techniques have, elsewhere, been demonstrated to be effective means of balancing the demand for housing with community goals to preserve rural character. In addition, creative land planning has been demonstrated as an effective means of reducing site development costs thereby reducing housing costs in general. The Town's Subdivision Regulations should be updated so as not to allow the open space requirements to be met solely by the wetlands, ledge and other unbuildable land on the property.

Goal HS.2 PROMOTE SAFE, SECURE AND ATTRACTIVE RESIDENTIAL NEIGHBORHOODS.

Policy HS.2.1 Continue to promote the rehabilitation of older housing stock.

Policy HS.2.2 Consider and support the special safety and accessibility needs of elderly and disabled residents.

Policy HS.2.3 Protect residential neighborhoods from unwanted intrusions and impacts from incompatible land uses by strict adherence to the Zoning Ordinance and Map.

Action HS.2.3.1 Continue to develop and enforce buffers and transition zones to prevent industrial and commercial intrusion into residential neighborhoods.

Purpose: The preservation of the Town's rural and suburban atmosphere and the integrity of existing residential areas is a high priority for Town residents. The use of buffers and transition zones would be innovative ways for Cumberland to prevent the

intrusion of any new economic development on the residential areas of the Town.

Goal HS.3 ENSURE THAT THE APPROPRIATE AMOUNT OF THE TOWN OF CUMBERLAND'S HOUSING STOCK IS AFFORDABLE BASED ON THE STATE'S AFFORDABILITY GUIDELINES AND MINIMUM PERCENTAGES.

Policy HS.3.1 Encourage the expansion of rental and homeowner subsidy programs in proportion to progressive increases in the size of housing stock.

Action HS.3.1.1 Satisfy the State's minimum affordable housing requirement (or greater goal as based on the Cumberland Housing Board's annual determination) by working with public, private and non-profit housing developers to develop affordable housing in areas in Town that would lend themselves to affordable housing

Purpose: The Town should proactively guide affordable housing to certain areas that can best accommodate higher densities due to existing water, sewer and other services. Areas that may be considered are as follows:

- rehabilitate and market as affordable the existing mill housing in Ashton Village (approx. 50 units)
- rehabilitate and market as affordable the existing housing in Berkeley on Mendon Road between Davenport's Restaurant and Lynch construction (approx. 50 units)
- convert the mill building currently occupied by Ann & Hope and Building 19 into affordable housing (approx. 100 units)
- rehabilitate and market as affordable existing triple deckers on or near Broad Street from Town Hall to Ann & Hope (approx. 30 units)
- rehabilitate and market as affordable several buildings behind Valley Affordable Housing on Blackstone Street (approx. 10 units)
- construction of new infill units in the higher density residential areas of Valley Falls, Lonsdale and Berkeley. The 1990 build out analysis suggests there are 400

vacant lots in these sections of Town, 50 should be targeted for new affordable housing.

- construction of new affordable units as part of Planned Unit Developments in the areas zoned for medium density. The 1990 build out suggests there are 1,270 acres available for development. PUD's including affordable housing should be located where sewer, water and other public facilities already exist. 300 units should be targeted as affordable in PUD's and medium density zones.
- construction of units for the disabled on the Town owned Epheta House Property. (approx. 10 units)
- Other areas that lend themselves to potential affordable housing should also be considered. The Zoning Map should be revisited to identify other potential locations.

Based on the total 12,572 housing units in Cumberland and the fact that 719 units are currently affordable, Cumberland needs another 538 affordable units to meet the State's current affordable housing requirements. Should the areas listed above be developed or redeveloped as specified for affordable housing, the Town would more than satisfy the State's requirement. While affordable housing should remain exempt from the Town's building cap, changes to the Growth Management Ordinance should consider linking average affordable housing construction in accordance with this Recommendation to implementation over 25 to 30 years.

Action 3.1.2

As the population grows, in order to accommodate the need for more affordable housing in conformance with the State's minimum affordable housing requirement, the Zoning Ordinance and Subdivision Regulations should be reviewed and revised to facilitate the creation of affordable housing.

Purpose: The Town's Regulations should work to maintain the number of affordable units by considering alternatives, including, but not limited to:

- All subdivisions involving the creation of over 10 lots or dwelling units should receive incentive provisions to require a percentage of lots for affordable units when appropriate.

- The Zoning Ordinance should be revised to specify the number of affordable units a PUD must include based on the public services available.
- Other alternatives should be considered as well to promote affordable housing consistent with the Town's Zoning Ordinance and Subdivision Regulations.

The 1991 Land Use estimated that another 3,879 units could be built on land zoned for residential development. Between 1990 and 2000, 1,355 units were constructed, leaving another 2,524 that could be built. Assuming that 10% of the remaining 2,524 units should be affordable, we can expect to see 252 affordable units constructed over the next 25 to 30 years as part of the standard subdivision process (or on average 10 a year). While incentives may be necessary in order to develop the necessary amount of affordable housing, a balance must be struck between the Land Use and Housing Elements of this Comprehensive Plan such that incentives, for example density bonuses, are limited in scope. Notwithstanding incentives to encourage the development of affordable housing in conjunction with market developments, density bonuses should be equal to half the percentage of affordable housing proposed. Bonuses greater than 50% over the underlying zoning district are inconsistent with both the Land Use and Housing Elements of the Comprehensive Plan.

Action HS.3.1.3 Review and revise the Zoning Ordinance and Subdivision Regulations as the population grows, in order to accommodate the need for more affordable housing in conformance with the State's minimum affordable housing requirement

Purpose: The Town's Regulations should work to maintain the number of affordable units by considering alternatives, including, but not limited to:

- All subdivisions involving the creation of over 10 lots or dwelling units should receive incentive provisions to require a percentage of lots for affordable units when appropriate.
- The Zoning Ordinance should be revised to specify the number of affordable units a PUD must include based on the public services available.
- Other alternatives should be considered as well to promote affordable housing consistent with the Town's Zoning Ordinance and Subdivision Regulations.

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Action HS.3.1.4 Vigorously support budget allocations to subsidized and public housing and work with the appropriate federal and State funding agencies to protect and, ultimately, increase those funds.

Purpose: With the continued demographic shift toward an ageing population, the demand for elderly public housing is likely to increase. With the effects of economic restructuring in southern New England and the increasing cost of housing, the number of individuals and families seeking rental subsidies is likely to increase. Cooperation with all relevant federal and State block grant and revenue sharing programs in the areas of public and publicly-assisted housing will ensure the continued availability of, and potential increases in, funds targeted for the provision of affordable housing.

Action HS.3.1.5 Continue offering CDBG housing rehabilitation grants and loans to low and moderate-income residents and other programs designed to promote both the quality and quantity of affordable housing and preservation of existing housing stock.

Purpose: In order to provide additional incentives for property owners to improve both the quantity and quality of the housing supply for low and moderate income families and

continue offering the loan and grant program.

Policy HS.3.2 Encourage the preservation of existing housing and the development of new housing which is affordable to low income and/or first time buyers.

Action HS.3.2.1 Assign the Planning Director the additional title of Housing Coordinator and require the Director to work with the Building Inspector, Planning Board, and Zoning Board to ensure that residential growth conforms to the goals of the Community Comprehensive Plan specifically in the area of increasing the supply of affordable housing.

Purpose: In order to ensure that residential growth occurs in compliance with the goals of the comprehensive plan, the Town should charge the Planning Director with working with other Town departments and commissions to promote desirably located projects, discourage poorly located developments, and collaboratively maintain data on housing trends in each of Cumberland's neighborhoods.

Action HS.3.2.2 Research and maintain electronic data base on federal, State, regional and local housing subsidy programs in order to effectively refer residents and potential developers of affordable housing to the appropriate agencies for assistance.

Purpose: Low-income families, the elderly, the frail-elderly, and low-income housing developers all share an interest in accessing subsidies for affordable housing. In order to promote the implementation of the plan's goals for affordable housing provision, the Planning Director should remain current in all pertinent governmental programs with a view to referring interested parties -- both Town residents in need and potential low income housing developers -- to the relevant agencies. This information should be made available, as well statistical data regarding the Town growth, through the Town internet web site.

Action HS.3.2.3 Enhance grant writing capabilities to strengthen local housing subsidy programs for low income and elderly individuals so that the Town can expand the base of support for current residents in need of assistance with retaining ownership of their property or with paying residential rents.

Purpose: By aggressively pursuing federal and State funds for affordable housing programs at the local level, the Town would be able to expand the base of support for current residents in need of assistance with retaining ownership of their property or with paying residential rents.

Policy HS.3.3 Encourage the development of vacant parcels in the more densely populated areas of the Town where services and facilities already exist.

Policy HS.3.4 Comprehensive permit applications should be located where roads and utilities can adequately accept the proposed density and where other support facilities including bus services, drug stores and grocery or convenience stores are located.

Goal HS.4 PROTECT ELDERLY, LOW AND MODERATE INCOME, AND DISABLED RESIDENTS OF THE TOWN FROM FINANCIALLY FORCED DISLOCATION TO OTHER COMMUNITIES.

Policy HS.4.1 Ensure that the supply of public or otherwise subsidized housing is sufficient to meet the future demands of growing numbers of elderly, low and moderate income, and disabled residents.

Action HS.4.1.1 Implement a modernization program which would direct federal and State funding to interior, access and safety improvements for residential units occupied by elderly tenants and owners.

Purpose: To further promote safe, high quality, physically appropriate housing for Cumberland's elderly population, a modernization program utilizing federal and State

funds would ensure the timely modification of residential structures. Candidate units would be screened and approved by the building inspector upon application and prior to Town approval for granting funds.

Policy HS.4.2 The continuation of property tax exemptions to disabled and elderly homeowners is seen as an important benefit that promotes personal as well as neighborhood stability.

Action HS.4.2.1 Continue the property tax exemptions for the elderly and disabled population of Cumberland

Purpose: Individual, family and neighborhood stability are paramount in preventing high property turnover and significant shifts in the occupancy of a Town housing stock. By ensuring a sharing of the fiscal burden of the property tax through direct deductions to the elderly homeowner, the plan's goals and objectives for housing affordability are partially met.

Action HS.4.2.2 Extend eligibility for elderly and disabled property tax relief to include landlords who provide rental units that are occupied by elderly and disabled tenants and that are certified as meeting the unique physical and lifestyle needs of those tenant groups.

Purpose: By extending the elderly property tax reduction to landlords who rent to elderly individuals, the Town could provide incentives for the creation and or conversion of residential structures for elderly use, including consideration for the physical needs of the elderly in terms of access and interior design.

IV. ECONOMIC DEVELOPMENT

A. INTRODUCTION

This element of the Comprehensive Plan identifies economic development policies and strategies that will address the well being of the Town's residents in both a local and regional economic context. It includes analysis of the local economy assessing its strengths and weaknesses in terms of the scope and character of the local employment base, the relationship between the local labor force and local opportunities for employment, and an assessment of current and future needs of the community. In addition, it includes an inventory and analysis of existing and planned economic development sites and programs.

In order to formulate an overall economic development strategy several data collection and analysis methods were utilized. These included an empirical review of historic economic trends, participatory research involving both the public and recognized experts in order to identify economic development issues. Results of this research is summarized in the Findings section of this element, and detailed information is contained in three sections of the inventory:

- Economic Base and Labor Force
- Need for Employment Opportunities, Goods, and Services
- Economic Development

State Planning Act Requirements

“Shall include the identification of economic development policies and strategies, either existing or proposed by the municipality, in coordination with the land use plan element. These policies should reflect local, regional, and statewide concerns for the expansion and stabilization of the economic base and the promotion of quality employment opportunities. The policies and implementation techniques must be identified for inclusion in the implementation program element.”

Requires consistency with State Guide Plan Elements:

- 110 Goals and Policies
- 211 Economic Development Policies and Plan
- 212 Industrial Land Use Plan

B. INVENTORY

This section examines the current and historic economic environment in Cumberland. The economic research is based on several key economic indicators: an analysis of the local economic base; an analysis of Cumberland's labor force, an assessment of the relationship between local employment and the economic well-being of Cumberland's residents, and projections of the future labor force and employment.

1. Economic Base and Labor Force

An analysis of the economic base and the mix of industries located in the Town was accomplished by studying the employment levels for various industrial categories. This approach permitted the study of historic trends in the composition of the economic base. Locally available employment opportunities was then compared to the employment characteristics of Cumberland's residents, based on US Census data.

Economic Base

Cumberland's employment trends have approximated those of the State over recent decades. In some instances, however, there are indications that the variance in employment levels has been greater at the local level, suggesting that the local economic environment is more susceptible than the State to economic shifts.

The Town's employment base is currently dominated by three sectors: services, wholesale and retail trade, and manufacturing. The overall level of local employment has remained relatively stable since 1980. The most significant change in the local

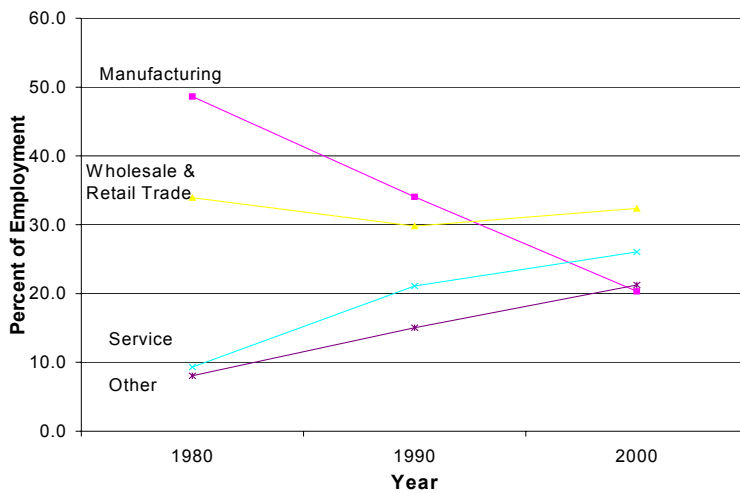
economy is the change in the distribution of employment by category. Manufacturing, which was the most dominant sector between 1970 and 1990, now follows services and wholesale/retail trade in relative importance. This change in employment base has created a shift from the customarily higher paying manufacturing employment to the lower paying service and trade sectors. According to Rhode Island Department of Labor and Training data, in 2001 the average wage paid in the manufacturing sector was \$32,316; while service employment paid an average of \$22,700 and retail trade only \$15,780.

The trends in the employment categories as a percentage of total economic base between 1980 and 2000 are shown in Figure IV-1. The decline in manufacturing employment is clearly shown as a continuous trend which began in the early 1980's; this sector has lost approximately 1,300 jobs over this time. The majority of this employment, however, has been replaced via employment increases in the service sector. Meanwhile, employment in the trade sector has remained fairly constant over this period, ranging from 30 to 34 percent of the local employment base. There has, however, been a shift in the relative importance of wholesale versus retail trade: employment of wholesale workers has declined while that of retail employees has increased. In addition to the changes in the three major categories of employment, there has been an increase in other categories of employment. The “other” category in Figure IV-1 consists of:

- Agriculture, forestry, & fisheries;
- construction;
- transportation, communication, & public utilities; and
- finance, insurance, & real estate.

The increase in the importance of these categories as a percentage of Cumberland's economic base represents a diversification of industries located in Cumberland. This increase is not a result of an increased number of businesses in any one category; all four of these categories have increased over the twenty-year time period.

Figure IV-1 Industry Trends



The RI Department of Labor and Trainings 2003 State of the State Report indicates that the average number of people employed by firms in Cumberland has decreased over the past decade. In 1989, 565 firms employed 6,583 workers; an average of approximately 11 workers per firm if all sectors are included. As of 2001, 733 firms in Cumberland employed 6,802 persons, an average of 9 employees per firm. Excluding the manufacturing sector, (typically the largest employers), there are 685 firms employing 5,411 persons for an average employment of less than 8 persons per firm.

Labor Force

In 1980, Cumberland's labor force consisted of 14,423 people. Although the original Plan estimated the 1990 labor force totaling 15,802 persons, the actual number was slightly higher: 16,127. By 2000, Cumberland's labor force reached 17,179 persons. In this twenty-year period, the percent of the population 16 years and older, identified as part of the labor force, remained a constant 70 percent.

Table IV-1 shows the composition of the labor force in 1980, 1990, and 2000 by major occupational categories. The table indicates that the employment trends of Cumberland's population are similar to that of the economic base: the importance of manufacturing has declined while service industries have increased dramatically.

Table IV-1 Labor Force Occupations

<u>OCCUPATION</u>	<u>% Labor Force</u> <u>1980</u>	<u>%Labor Force</u> <u>1990</u>	<u>%Labor Force</u> <u>2000</u>
Agriculture, Forestry, Fisheries, & Mining	0.7	0.3	0.2
Construction	3.5	1.3	5.1
Manufacturing	38.1	28.7	17.3
Transportation, Utilities, & Communication	5.4	6.6	7.0
Wholesale & Retail Trade	21.2	22.8	17.8
Finance, Insurance, & Real Estate	5.0	5.9	7.7
Services	26.2	34.3	44.8

Source: U.S. Census 1980-2000

Cumberland's labor force is not heavily dependent on local employment opportunities. The number of Cumberland residents employed in 2000 was over 16,000, significantly more than the number of local jobs that were available at that time (6,802). In addition, the majority of Cumberland's residents work in communities other than Cumberland. In 1980, 77.4 percent of the employed residents of Cumberland worked outside of their area of residence, while 82 percent of Cumberland's residents worked in other locales in 1990. Although this data is not available for 2000, given the recent declines in those industries that have traditionally employed Cumberland's residents, it is likely that this trend has continued. Rather than being a center of employment, Cumberland is a bedroom community, a Town whose residents generally work in other cities and towns.

2. Need for Employment Opportunities, Goods, and Services

Employment opportunities

Recent statistics (2000) have placed Cumberland's labor force at 17,179 persons of which 16,551 were employed. This equates to an unemployment rate of 3.7 percent, and represents a decrease in unemployment from 5.4 percent in 1990 and 6.8 percent in 1980. While there is a historical dependence on the manufacturing sector, as this sector

has decreased its employment levels residents are finding work in other communities or are shifting to the service and retail sectors which are growing locally. Yet, although the average wages in the retail and service sectors are, on average, considerably lower than those in manufacturing, Cumberland's median income has risen steadily over the last two decades. Cumberland's economy has shifted from community employment, where local jobs provide a critical economic resource to the local population, to regional employment, where local jobs are likely to be filled by non-resident employees while the vast majority of the labor force commutes out of town to work.

The 1991 Plan assumed that in addition to this inherent shift away from reliance on local employment, demographic trends would further reduce the local demand for employment. The growth patterns and estimated age distribution of the population at that time suggested that the local labor supply (persons between the ages of 16 and 65) would not increase over the next 20 years without significant population in-migration, and that such local shifts were not considered to be likely given the physiographic constraints to growth in Cumberland. However, as established in the Demographic Analysis, Cumberland's population has increased, through both natural increase and in-migration. Cumberland's local labor force has in fact grown along with the population as a whole. However, this population increase has not created significant demand for new local employment opportunities. Cumberland's residents primarily view the Town as a bedroom community, a place to live rather than a place to work. In addition, the Townspeople recognize the traffic and environmental costs of expanding the economic base, and while revenues from business are greatly valued, there is a limit to how much new commercial and industrial activity the Town wishes to see.

Goods and services

Changes in the pattern of demand for local goods and services are largely dependent on changes in the characteristics of the population. In order to assess how demand for will change in the future, a number of indicators relating to Cumberland's population were examined. Resident satisfaction with existing level of goods and service provision and desire for additional commercial growth were assessed by the Community Survey in

1990 and by workshops in 2002 and 2003; results from both of these data-collection methods were similar.

Cumberland is part of a well-serviced region of the State, with sufficient goods and services available in adjacent towns (particularly Lincoln and Attleboro) and at several regional malls. Given the regional character of shopping patterns, Cumberland's residents are, in general, satisfied with the fairly limited facilities located within the Town itself. Residents, on the whole, do not support the conversion of additional land to commercial or industrial uses. They especially do not want to encourage further commercial sprawl along transportation routes; they would prefer to see clustered commercial activities as part of a village or neighborhood. There is a clear perception among residents that the provision of goods and services is adequate within the Town, and that any additional requirements for services can be met by facilities conveniently located elsewhere in the region.

The 1991 Comprehensive Plan noted that attitudes of the resident population concerning the desirability of additional economic development within the Town might

have to be set against increased need for such services if the population were to increase significantly. Despite the population's increase at a rate higher than predicted, there has not been a significant need for additional local provision of private-sector goods and services beyond the growth in the service sector that has occurred over the past decade.

It is unlikely that continued population increase will have more than a limited impact on the economic base of the community. Local demand for locally-delivered goods is not seen as an issue of vital future concern. However, the increase in the proportion of elderly residents is significant and, given regional and national trends toward an aging population, likely to continue. The demand for health care services will likely increase if the elderly population continues to increase relative to the wider population. An aging population will place far greater demand on the public sector (human services and public assistance programs) than on the private market's ability to furnish appropriate goods and services. The ability of the public sector to respond to this key demographic shift of the 1980's and 1990's is a crucial issue for Cumberland to confront, and is addressed by the Public Services and Facilities Element of this Plan.

3. Economic Development

Although Cumberland does not require an significantly larger economic base, it does wish to maintain and better service the businesses it currently has. Additionally, the community needs to keep its options open, should a high profile tax and employment producing firm decide to move to Cumberland.

An important component of the economic development element is programs available for promoting economic growth as well as the investigation of possible future sites for new economic activity. This section first includes a summary of the Rhode Island Enterprise Zone Program. It then inventories sites with varying future potential as new or expanded centers of economic activity, commerce and employment.

Enterprise Zones


Established by Rhode Island State Legislation, the purpose of the Enterprise Zone Program is to stimulate industrial and commercial business growth in designated Zones. There are two such Zones in Cumberland:

- **Central Falls/Valley Falls** – Includes the historic mill villages of Valley Falls and Ashton/Berkeley as well as the entire City of Central Falls
- **Woonsocket/Cumberland Enterprise Zone** – Encompasses Highland Corporate Park, Woonsocket's Highland Industrial Park, and historic downtown Woonsocket.

Any business located within an Enterprise Zone can register for the program. Membership in this program gives firms the ability to qualify for special tax credits if the business increases its full-time employment and its total payroll increases. In addition, members receive priority consideration for financing, job training, and permit expediting. As of 2003, there are 42 Cumberland businesses enrolled in the program. The most recent data on the success of this program indicates that these businesses have so far created 180 new jobs, and that 14 of the companies were eligible for tax credits.

Industrial Parks

There are currently five sites in Cumberland being used for industrial activity, their locations are shown in Figure IV-2. These locations, and other developed areas such as the many vacant textile mills in the Town, represent the preferred location of future economic development. Economic development in these already developed areas will not result in loss of additional open space. In addition, the Industrial Parks are already properly serviced by infrastructure, which reduces costs associated with development.

The original Comprehensive Plan identified several areas as potential economic development sites which are no longer under consideration. The Abbott Run Business Park has been committed to residential development. The Ashton Park/Ashton Mill site was purchased by  Forest City Enterprises and will be primarily developed for residential use, although some commercial uses may be included. The Berkeley

Industrial Park is also no longer included in this inventory due to physical constraints and its location, adjacent to the Blackstone River.

The New England Economic Development Corporation maintains a list of commercial and industrial facilities in Cumberland, including their status as vacant or occupied as well as suitability for various uses. This list represents an important resource that should be utilized when formulating economic development plans.

Highland Corporate Park-Cumberland (HCP, formally Highland II) - The 1991 Plan identified a proposal for the site as an extension of Woonsocket's Highland Industrial Park to be used for light industry. Now, the area is being developed as an upscale office and light manufacturing complex. HCP is managed by the Highland Corporate Park Venture, a 50/50 joint venture between two private non-profit real estate developers: the Woonsocket Industrial Development Corporation and the Blackstone Valley Development Foundation, Inc. Currently, HCP consists of 240 acres, 120 of which are available for development and 120 acres under conservation restrictions. Eighty-four of the buildable acres have been sold and developed so far: two buildings with approximately 50,000 square feet of office space and five buildings with combined industrial space of 342,000 sq ft. In addition, two industrial buildings of 60,000 sq ft and


30,000 square feet are under construction. Ten already subdivided lots consisting of thirty-six acres remain available for development. This site is located in the Woonsocket/Cumberland Enterprise Zone, and is currently the most significant site in terms of Cumberland's future economic development.

New River Industrial Park - Existing development at this 127 acre this site, located in the Berkeley neighborhood between Mendon Road and the Blackstone River, consists of older manufacturing facilities, warehousing, distribution and gravel extraction. There is little room for expansion of industrial activity at this site due to natural constraints of the Blackstone floodplain, poor access and expanding residential development. However, eventual conversion of the existing mining operation to light manufacturing might be a viable option.

Martin Street Industrial Area - Immediately north of the New River site on the Blackstone River is the Martin Street Industrial Area. This site is bounded on the west by the Blackstone River, to the north by the Ashton Park Industrial Area, to the east by mixed use development and Mendon Road and to the south by Martin Street. The site is approximately 48 acres in size. It is predominantly developed, and vacant parcels exist in the Blackstone River floodplain/floodway. Natural constraints at the site preclude future large-scale development.

Cumberland Industrial Park (Diamond Hill Industrial Park) - A 116 acre site located on either side of Route I-295 primarily in the Thompson Hill neighborhood. Current uses includes several manufacturing facilities and three large trucking companies. While the 1991 Plan identified 21 additional acres of developable land, the site is now entirely developed.

Manville Hill Industrial Park (River View) - A 109-acre site located in the northwestern section of Town, between the North Cumberland residential neighborhood and the Blackstone River. The site is currently used as a sand-and gravel operation, as well as for manufacturing. If quarry operations are discontinued the site has the potential to be developed as an office park. However, much of the site is environmentally constrained, as it is located in the Blackstone River's floodplain.

Valley Gas Industrial Site - This site, consisting of approximately 100 acres, was identified in 1991 as an additional development site which should be considered as part of the site inventory. Its convenient access to I-295, isolation from residential areas and current industrial use indicate future economic development potential. The environmental constraints consist of hilly terrain and bedrock near the surface. Existing industrial development on the site accounts for approximately 40 percent of the total area, leaving an estimated 60 acres for expansion. The Blackstone Sewer Interceptor is within  mile of the site. Despite the physical difficulties imposed by the natural constraints, the site's location and ability to be buffered from the residential areas to the south lead to an assessment of long term potential for economic development possibly as an office or business park.


C. FINDINGS

Cumberland's employment base is currently dominated by three industrial sectors: services, wholesale/retail trade, and manufacturing. The importance of manufacturing has steadily declined over the past thirty years, while employment in the service sector has increased. In addition, diversification of industries has occurred as employment outside the three main sectors has increased.

The local labor force is not heavily dependent on local employment opportunities. There is a high level of disparity between the size of the local labor force in 2000 (17,179 persons) and the number of local jobs that were available at that time (7,008). The majority of Cumberland's residents are employed outside of the Town. Cumberland's economy has shifted from community employment where local jobs provided a critical economic resource to the local population, to a pattern of regional employment of the labor force. Cumberland's labor force and future demand for local employment are not expected to greatly increase.

The Town's economic base has consistently shifted away from industrial production toward commercial (retail and office-based) services during the last thirty years. The majority of development over the past decade has been residential, rather than commercial or industrial; several potential industrial sites were in fact committed to residential uses. Because of the potential conflict with residential land use as well as


environmental constraints, there appear to be few if any options for future industrial sites beyond those identified in the inventory. In addition, due to recent changes in land use, surrounding growth and economic activity, the development of new industrial operations or expansion of existing sites will require strict performance controls to mitigate their impacts on the community. The Highland Corporate Park represents the most promising site for future industrial development.

Commercial development in Cumberland has proceeded as strip development along Mendon and Diamond Hill Roads. This pattern, typical of suburban sprawl, is not appropriate for maintaining Cumberland's aesthetic character. This type of development should be discouraged by encouraging nodal type commercial activity by creating neighborhood commercial districts and encouraging the use of Planned Unit Developments. The reuse of closed textile mills for commercial purposes should be encouraged, so as to preserve Cumberland's valuable open space. Such redevelopment is often costly due to the obsolete nature of the structures and the high costs of  version, however, such projects as the ongoing Ashton Mill Conversion Planned Unit Development, may be a model for some of these mills.

D. GOALS, POLICIES, AND RECOMMENDATIONS

Economic conditions are, in large measure, precipitated by regional and national events which are well beyond the scope of local control. For this reason the emphasis of the Comprehensive Plan is to specify realistic actions and intervention strategies within the community's ability to accomplish.

State Planning Act Goal

- To promote an economic climate which increases quality job opportunities and overall economic well being of each municipality and the state. 

Cumberland Economic Development Goals

Goal ED.1 ENCOURAGE ECONOMIC DEVELOPMENT WHICH IS LESS
VULNERABLE TO REGIONAL AND NATIONAL CYCLICAL CHANGE.

Policy ED.1.1 Promote a greater diversification of the types of industries located within the Town.

Action ED.1.1.1 Actively pursue economic development which diversifies and ultimately strengthens and expands Cumberland's tax base.

Action ED.1.1.2 Investigate the possibility of utilizing the New England Economic Development Corporation's inventory of currently vacant, developable commercial and industrial space as a method of targeting specific sites for economic development initiatives.

Policy ED.1.2 Encourage local involvement in the development of regional economic development strategy.

Policy ED.1.3 Involve the Town in proactive marketing policies designed to attract new types of industry.

Action ED.1.3.1 Develop a marketing brochure which will explain the strengths of Cumberland as a business location; in addition, the Town should produce a companion developers' guide which will clearly explain the permitting procedures and available sites in Cumberland

Goal ED.2 PRESERVE THE VIABILITY OF THE EXISTING COMMUNITY ECONOMIC BASE.

Policy ED.2.1 Screen and evaluate new economic development which might have deleterious effects on existing businesses.

Policy ED.2.2 Promote and assist in the growth of existing business when such expansion is deemed important to the economic development goals of the community.

Action ED.2.2.1 Encourage small commercial businesses to grow or to relocate within the Town. Existing non-conforming commercial uses should be considered for rezoning to reflect existing conditions.

Action ED.2.2.2 Permit density and/or occupancy transfers between the land on which a business is currently located and the land to which it intends to move in order to encourage the expansion of existing small businesses.

Policy ED.2.3 Encourage the redevelopment and use of existing vacant economic assets, including industrial properties and mill buildings where economically feasible.

Action ED.2.3.1 Form a task force responsible for pursuing grant

money for the renovation of mill buildings.

Goal ED.3 MAINTAIN AND PROTECT COMMUNITY AND NEIGHBORHOOD
QUALITY AND VALUES.

Policy ED.3.1 Develop neighborhood economic development strategies that promote harmony between economic and residential interests.

Action ED.3.1.1 Concentrate commercial zones in village centers in those areas that are properly served by transportation and other infrastructure.

Action ED.3.1.2 Develop neighborhood commercial overlay districts which will permit the expansion and addition of low order, small scale commercial enterprises to serve the needs of the surrounding community.

Action ED.3.1.3 Draft comprehensive commercial and industrial performance standards to be applied to the development and expansion of economic development sites that are located within or close to sensitive environmental and/or residential areas.

Policy ED.3.2 Protect the community from speculative development that is not locationally and functionally compatible with local strategies.

Policy ED.3.3 Encourage economic activity which minimizes environmental impacts and infrastructure demands.

Goal ED.4 PROMOTE ECONOMIC STRATEGIES WHICH WILL HAVE DIRECT
POSITIVE BENEFITS TO CUMBERLAND.

Policy ED.4.1 Encourage economic development which expands the community tax base while minimizing the demand for public services and infrastructure.

Policy ED.4.2 Encourage economic growth which provides quality employment opportunities for the local labor supply.

Action ED.4.2.1 Identify appropriate uses for economic development sites and create and apply zoning classifications which permit greater flexibility and control over choices of economic activities to be located on designated economic development sites.

V. NATURAL RESOURCES

A. INTRODUCTION

Attitudes towards the value of land have changed dramatically over the past decades. Previously, land was viewed in terms of its development potential and marketability. If land was not suitable for development it was flattened, drained, or filled. Experience has taught us that land is a complicated resource and the market alone cannot be expected to provide adequate environmental protection. Proper planning should identify those areas which, because of their value as natural or cultural resources, serve a more important role than supporting development.

The purpose of this element is to identify and assess the extent of significant natural resources within the Town of Cumberland. In addition, it evaluates how development impacts each component of the natural environment. Finally, it establishes methods for protecting and managing natural resources belonging to the community and the State of Rhode Island.

State Planning Act Requirements

According to the R.I. Comprehensive Planning and Land Regulation Act, the Natural and Cultural Resource Element "shall provide an inventory of the significant natural resource areas such as water, soils, prime agricultural lands, natural vegetation systems, wildlife, wetlands, aquifers, coastal features, flood plains and other natural resources and the policies for the protection of and management of such areas. The policies and implementation techniques must be identified for inclusion in the implementation program element."

The Act also requires consistency with State Guide Plan Elements:

- 110 Goals & Policies
- 121 State Land Use Policies and Plan
- 131 Cultural Heritage & Land Management Plan
- 162 Rivers Policy & Classification Plan
- 731 Nonpoint Source Pollution Management Plan

B. INVENTORY

Cumberland's natural resources can be broken into three major categories: geologic, hydrologic, and ecologic resources. Geologic resources include surficial geology, topography, and soils. Hydrologic resources are surface and groundwater, wetlands, and floodplains. Ecologic resources include both individual species as well as specific habitats located in Cumberland. This section inventories each of these resources and documents potential threats stemming from human activities.

1. Geology

The geologic and topographic features of Cumberland were formed or modified by glacial processes. During the last continental glaciation a thick sheet of ice covered most of the region. This ice, moving slowly in a southeasterly direction, transported soil and rock fragments thereby obliterating existing landforms and creating a completely new landscape. New valleys were gouged out and drumloidal hills were formed by the ice. Deposits ranging from glacial till and drift containing large boulders to fine grained deposits of silt and clay were created by the moving ice and later modified by extensive meltwater and the wind. Glacial features have been further modified by post glacial geologic processes such as erosion, weathering, redeposition of soils by wind and water, and the effects of vegetation forming cumulose soils (peat and organic silts) in depressions and along water courses.

Surficial Deposits

The surficial geology of Cumberland was mapped in 1949 by the United States Geological Survey (USGS) and has not been updated since. The base topographic survey used for the mapping is the Pawtucket Quadrangle at a scale of one inch to the mile (fifteen minute series). The Pawtucket Quadrangle covers most of the Town of Cumberland. Characteristics of surficial geology in Cumberland include till, bedrock, outwash, and minerals.

Most of the Town of Cumberland is composed till, a material which was deposited with little or no sorting and compacted to form dense deposits not suited to groundwater storage. Till, typically 10 to 20 feet thick, mantles the bedrock surface in the upland areas of the Town. Most of this till forms an uneven mantle or ground moraine. This is found over large areas on Thompson Hill, and on both sides of Mendon Road on Cumberland Hill.

Bedrock outcrops are scattered throughout the Town, particularly evident north and south of Sneece Pond Road between Mendon and Diamond Hill Roads. Much of the bedrock is calcareous based, which reduces acidity of overlying soils. This unique chemical makeup supports plant communities found that are found exclusively within this region.

Outwash is material which was deposited by glacial meltwater with much sorting and stratification by grain size. Because of this stratification, outwash deposits often contain significant layers of coarse-grained material suited to groundwater storage. A major area of outwash is found in north Cumberland near the Pawtucket Reservoir. This area is mostly developed by the residential neighborhood of Diamond Hills.

The principal mineral resources in the Town of Cumberland are sand and gravel deposits. There are several sand and gravel excavations along Abbott Valley and Blackstone Valley. In addition, an investigation conducted in 1937 identified mine holes containing iron, copper, titanium, zinc and tungsten. The extent of these mineral deposits was quite small and would not be profitable to mine under present circumstances. In addition, the igneous rock Cumberlandite, can be found in Iron Hill. This black, heavy, magnetic rock is found nowhere else in the world, and has been designated as Rhode Island's State Rock.

Topography

Topography is the form of the earth's surface, in particular the changes in elevation of the surface. The topography of Cumberland includes landforms such as hills, valleys and plains. The Town's elevation ranges from a low elevation of 10 feet above mean sea level (MSL) near the Blackstone River to a height of over 547 feet above MSL at Beacon Pole Hill.

There are approximately 12,000 acres of steep slopes within the Town. The location of steep slopes (15 percent or greater) in the Town was determined from USGS maps by calculating the amount of rise in elevation over a given horizontal distance. The Soil Conservation Service maps were also used to identify steep slopes. Areas of steep are located throughout the Town and are illustrated in Figure V-1. The most extensive concentrations of steeply sloping land are in the central section of the Town and along the banks of the Blackstone River. Steep slopes are protected in Cumberland's Subdivision Regulations because their disturbance will result in soil erosion and other environmental problems.

Soils

Soils are the surface layers of the earth. They are usually created by modification of surficial geologic material by the weather and climatic conditions. Soils are composed of gaseous, water, organic, and rock constituents. Variations in these constituents give soil a set of physical characteristics. The physical characteristics of soil determine their ability to support weights, susceptibility to erosion and failure in sloping terrain, capacity to receive and transmit water, and economic value (particularly for agriculture).

Soil types within the Town were mapped and analyzed by the Soil Conservation Service (SCS). Figure V-2 is a map of soils with development constraints as well as farmland soils, those whose physical characteristics make them highly suitable for crop production. Farmland soils are important for their resource potential.

The Town of Cumberland has approximately 2,305 acres of prime agricultural soils, or about 13 percent of total land area. Some of these soils are currently being used for agricultural purposes; however, a much greater percentage of these soils have been lost to development. Table V-1 identifies the types of farmland soils within the Town and shows their extent of surface coverage.

**Table V-1 Prime Agricultural
Soils**

<u>Soil Name</u>	<u>Acreage</u>
Agawam	230
Bridgehamton	10
Canton and Charlton	1,125
Paxton	940
TOTAL	2,305

Impact of Geology on Land Use

Surficial geology - Characteristics of surficial geology impact land use planning because they affect land use suitability. For instance, bedrock can result in higher excavation costs if a large amount of drilling, blasting, and disposal or processing is required to excavate rock. Areas with shallow depths to bedrock indicate areas not suited to individual on-site sewerage disposal systems.

Areas of organic soil deposits on the other hand, may contain considerable depths of organic material that must be removed and replaced with gravel for construction. Deep foundations are generally required if structures are built in areas of swamp deposits. Deep foundations (consisting of piling, caissons, etc.) invariably cost more than shallow foundations. Organic soil deposits may also indicate areas of wetlands, which are also protected by the Town's Subdivision Regulations and by the Rhode Island Freshwater Wetland Act.

Topography - Steep slopes of 15 percent or more, can affect land use by increasing the amount of excavation and filling required for construction. This, in turn, can affect the stability of a development. Steep slopes are also very susceptible to erosion, particularly if vegetation is removed during construction.

Soils - Soils with severe limitations for supporting individual subsurface wastewater disposal systems (septic systems or ISDS) have important consequences for development.

Development in these areas may lead to contamination of surface or groundwater resources if sanitary sewers are not available. However, providing sewerage can lead to denser development than is desired. According to the SCS mapping, there are over 5,670 acres of soils whose characteristics impose severe limitations for individual sewage disposal systems in Cumberland, this constitutes over 30 percent of the Town's total land area. As shown in Figure V-2 the majority of these soils are located in the northern portion of Town, where sanitary

Table V-2 Soils with Severe ISDS
Limitations

<u>Name</u>	<u>Acres</u>	<u>Characteristics</u>
Adrian Muck	145	Wetness, Floods
Canton	1,725	Large Stones, slope
Carlisle	375	Floods, wetness
Canton & Charlton	405	Large Stones, Slope
Paxton	1,030	Severe, percs slowly
Ridgebury	285	Percs slowly, wetness
Ridgebury	905	Large stones, wetness
Rock Outcrop	285	
Walpole	505	Wetness
Total	5,670	

sewers are limited and the majority of recent development has taken place. Table V-2 identifies these soils and their limitations. The Town's recently approved Soil Erosion and Sediment Control Ordinance protects some soil resources, however, more can be done to further preserve important soils.

2. Hydrology

Hydrology consists of interactions between surface and groundwater. Wetlands usually occur as a transitional area between surface water and dry upland areas, or in areas where groundwater is near or at the land's surface. Floodplains also occur alongside surface water bodies. This section inventories the type, quality, and quantity of these resources. Potential threats to these natural resources are summarized in the final section.

Groundwater

Groundwater is water that saturates geologic or soil formations, generally in pore spaces between soil particles or fractures in bedrock. Groundwater aquifers are important as a source of drinking water. In addition groundwater discharges to the surface maintain baseflow in streams and rivers, and contributes water to lakes, ponds, and wetlands.

Aquifers - An aquifer is a formation of soils or rock with the capability of storing large volumes of water. An aquifer can be composed of consolidated material such as limestone rock or unconsolidated material such as sand and gravel. The Rhode Island Department of Environmental Management (DEM) has mapped the State's aquifers and their associated recharge areas. DEM's definition of a significant aquifer is one that has a saturated thickness (distance between water table and base of an aquifer) of greater than forty feet and a transmissivity (potential water yield) greater than 4000 square feet per day. Based on this definition, two significant aquifers are located in the Town of Cumberland: The Blackstone River Valley and Abbott Run Aquifers. The location of these aquifers is illustrated in Figure V-3.

- *Blackstone River Valley Aquifer* - From the Massachusetts line to Ashton, the Blackstone River aquifer is very narrow and averages 40 feet thick or more with an

average width of less than 500 feet. Much of the thickest and most transmissive part of the aquifer is located beneath the river. The maximum known thickness of the aquifer in this part of the river valley is 70 feet and the maximum transmissivity is 17,600 square feet per day (ft²/d). From Ashton to Valley Falls Pond, the aquifer has a maximum known thickness and transmissivity of 165 feet and 44,000 ft²/d, respectively. The saturated volume of about 4 billion cubic feet is estimated to contain 6 billion gallons of water. The Cumberland Water District has several wells located in this aquifer.

- **Abbott Run Valley Aquifer** - Downstream of the Abbott Run and Happy Hollow Pond Surface Water reservoirs, this stratified-drift aquifer covers 4.5 square miles and has a saturated thickness of as much as 80 feet. Saturated volume of the aquifer is about 4 billion cubic feet.

Groundwater Quality - DEM has classified the groundwater in Rhode Island based on its suitability for public drinking water purposes. The groundwater in Cumberland is classified as GAA, GA, and GB, this can be seen in Figure V-3. Areas classified as GAA are known to be suitable for drinking water use, and are afforded the highest level of protection by State regulations. In Cumberland these are areas of stratified drift alongside the Blackstone and Abbott Run River. The majority of Cumberland's groundwater is classified as GA, which is also assumed suitable for consumption. A small area in the southern tip of Cumberland is classified as GB, this classification is for groundwater that is known or presumed not to be suitable for drinking without prior treatment.

Part of the Blackstone River Valley Aquifer located under the 500-acre Peterson/Puritan, Inc. Superfund site is classified as non-attaining. This classification is given to areas where groundwater quality is known or presumed to be out of compliance with classification standards, and is assigned to specific locations where groundwater contamination has occurred. In this case, contamination is a result of 1974 railcar accident and the subsequent spill of 6,000 gallons of solvent. There are also other small areas of non-attaining groundwater associated with CERCLIS sites and LUSTs. The State's goal for non-attainment areas is for compliance with classification standards; the location of these non-attaining areas is shown in Figure V-3.

Groundwater Quantity -The level of a water table varies both over the course of a single year, as well as from one year to the next. Generally, the water table is at its highest in the

spring, and drops to its lowest point in the fall. The depth below the earth's surface to the water table is affected by groundwater recharge and discharge. Groundwater recharge generally occurs in areas of permeable soil, where there is a zone of aeration above the water table. Amount of recharge is based on amount of precipitation and permeability of soils. Volume of recharge to the groundwater supply is reduced by impervious surface, which allows precipitation to run directly in to surface water bodies without replenishing groundwater supplies. Discharge occurs in areas where groundwater becomes surface water, such as springs and seeps, as well as some ponds and rivers, where it maintains water levels. When groundwater is removed through the action of major wells discharge may be reduced or the water table lowered, thereby negatively impacting surface water bodies.

According to information obtained from the RI Water Resources Board, the majority of groundwater withdrawn from Cumberland's aquifers is subsequently sent out of the area. Between 1995 and 1999 an average of 14.5 MGD of groundwater was withdrawn from the Town's two aquifers. Only 24 percent of this amount (3.5MGD) was utilized in Cumberland; other municipalities used the remaining 75 percent. In addition to this exportation of groundwater, water is also lost in the form of sewage. An average of 2.543 MGD of sewage is sent to the Narragansett Bay Commission's Wastewater Treatment Center, where it is discharged into Narragansett Bay. This exportation of water reduces the amount of recharge available to Cumberland's aquifers, and may have a negative affect on the amount of water available in the future. The issue of water quantity must be further addressed through Cumberland's Growth Management Initiative.

Surface Water

Cumberland's surface water includes 1,026 acres of rivers, streams, lakes and ponds. These areas, and their tributary watersheds, were identified to assess potential impacts of land use on water quality. Identification of water resources was conducted using Rhode Island Geographic Information System (RIGIS), and maps. Watershed boundaries were plotted using the topographic information supplied on the USGS maps to interpret drainage area limits and were then compared with State's GIS watershed delineation. Figure V-4 illustrates the surface water areas and their watershed boundaries. The largest watershed involves the Blackstone River and Pawtucket Reservoirs. The Sneece Pond watershed is also identified, as it is the source of Cumberland's public water supply.

Surface Water Quality -The Rhode Island DEM has identified high quality surface waters throughout the State. These “special resource protection waters” are significant in terms of their ecological or recreational value. Several ponds, brooks, and rivers in Cumberland are included on DEMs list of special resource protection waters.

- **Reservoirs** - Diamond Hill and Pawtucket (Arnold Mills)
- **Ponds** -Happy Hollow, Robin Hollow, Sneece, and Valley Falls
- **Brooks** – Abbott Run, Ash Swamp, Crookfall, East Sneece, and Longbrook

Although these water resources are currently of high quality, they are at risk from a variety of pollution sources. Pathogens, nutrients, and heavy metals are all potential sources of contamination. Other surface water bodies, including the Blackstone River and Valley Falls Ponds, have already been negatively impacted by human activity.

Mandated by the Clean Water Act, the Total Maximum Daily Load (TMDL) program requires quantifiable goals to be set for water bodies not meeting water quality standards. No TMDLs have yet been developed for water bodies in Cumberland, however, impairments to several waterbodies have been identified by the State and priorities for TMDL development have been established; these can be seen in Table V-3.

Table V-3 Threats to Water Resources

<u>Class</u>	<u>Resource</u>	<u>Cause</u>	<u>Priority Ranking</u>
B1	Blackstone River	Biodiversity impacts, pathogens, Cu, Pb, hypoxia, nutrients, ammonia	Targeted (2002-2004)
B1	Valley Falls Pond	Biodiversity Impacts, Pb, Pathogens, algal growth/CHL-A, anoxia, Phosphorus	Targeted (2002-2004)
A	Ash Swamp Brook	Pathogens	High (2003-2005)
A	Abbot Run Brook	Biodiversity impacts, Pb, (Cd)	Medium (2008-2012)
A	Long Brook	Pathogens	Medium (2008-2012)
A	Robin Hollow Pond	Pathogens	Low (2012+)
A	East Sneece Brook	Pathogens (2002)	2012+

SOURCE: RI Department of Environmental Management

Wetlands

Wetlands are generally termed as the transitional lands area between terrestrial and aquatic environments. They are areas of poorly drained soils characterized by permanent or temporary soil saturation and occasionally standing water. These areas perform many functions, and are therefore an important resource for the overall environmental health of a community. Functions include:

- **Water Purification (Surface and Groundwater)** – Vegetation reduces water velocity, allowing particulate matter to settle out. Some vegetation function in denitrification, removal of phosphorus, and other toxin-removing chemical reactions.
- **Water Storage and Groundwater Recharge/Discharge** – Depending on its location, wetlands may store water, which allows for maintaining stream baseflow, or serve as an area of groundwater discharge.
- **Flood storage and control** – Depressional wetlands temporarily retain flood water and release it slowly, thereby preventing “flash floods”.
- **Habitat and Biological Productivity** – Wetlands are some of the most productive ecosystems on earth. In addition, although they only make up approximately five percent of the land area in the United States, they provide habitat for a disproportionately high percentage of rare and threatened species. Fifty percent of nationally listed rare species are associated with wetlands; this number is much higher for some taxa such as birds and amphibians.
- **Erosion/Storm Damage Control** - Wetland vegetation slows down sheet flow along channels, reducing erosion and therefore the amount of sediment entering lakes and rivers.

Wetlands within the Town were identified using the RIGIS system. Figure V-4 shows the wetlands within the Town, these were mapped in 1988. At that time there were 1,942 acres of wetland identified in Cumberland. As of 1995, 21 acres of wetlands were lost, despite Rhode Island’s stringent wetland regulations. Large concentrations of wetlands can still be found in northern Cumberland along Pine Swamp and Ash Swamp. Another

concentration is in the central section of Town associated with Little Pond, Scott Brook, and Long Brook. Both the Lonsdale Marshes and Ash Swamp have been identified by DEM as Special Resource Protection Waters. Location of wetlands in Cumberland is shown in Figure V-4.

Floodplain/Floodway

Floodplains are areas adjacent to rivers, streams, and surface water bodies which are susceptible to flooding during periods of excessive water runoff. During normal stream flow, water is carried within the channel; in times of high runoff, water overflows its banks and spills into the floodplain. The floodway is the central portion of the floodplain that contains the river and enough of the surrounding land to enable floodwaters to pass. No development should occur within the floodway.

The 100-year floodplain includes all the land area which will be flooded during a 100 year flood event. A 100-year flood is a base flood that has a one percent chance of occurring in any year. Over a long period of time, such a flood is projected to occur once every 100 years on the average. The 100-year flood boundary, or the 100-year floodplain, is usually the area identified for development restrictions. Within the Town of Cumberland floodplain areas are found adjacent to most large watercourses and waterbodies. The largest floodplains within the Town are those associated with the Blackstone River. The floodplains within the Town have been mapped by the Federal Emergency Management Agency (FEMA), they can be seen in Figure V-5.

Threats to Water Resources

The Town's 2003 Stormwater Management Program Plan and 1999 Drinking Water Protection Plan document specific threats to Cumberland's Water Resources. These, along with more general causes of impairment from DEM's 2003 305(b) State of the State's Water Report, are identified below.

Groundwater - Sources of groundwater pollution include agriculture, construction, resource extraction and land disposal. Specific threats to groundwater in Cumberland include 44 Leaking Underground Storage Tanks (18 active, 7 inactive, 19 soil removal

only); septic systems (nitrates, bacteria, viruses, toxics); leachate from the (closed) Cumberland Municipal Landfill and 500-acre Peterson/Puritan, Inc. Superfund Site (solvents), storage and application of road salt, pesticides, and fertilizers (nitrogen).

Surface Water -Land use can affect both the quantity and quality of water resources. Quality impacts include the impacts of runoff carrying oil and grease, heavy metals, tire particles and de-icing compounds (salts) from driveways and parking areas to the water bodies. Quantity impacts include changes in local hydrology that can result from increases in impervious area and the resulting installation of drainage structures, as well as water withdrawals from public and private wells. Alterations in topography caused by cut and fill alternations undertaken for construction may also affect local hydrology.

Wetlands - The value of wetlands has not been fully appreciated until recent years. Conversion of wetlands to dry lands by draining, dredging, and filling was responsible for estimated loss of almost 40 percent of Rhode Island Wetlands between the 1880's and 1980's. In 1970 the Rhode Island Freshwater Wetland Act was passed, which afforded most of these areas protection against conversion. Other threats have become more important over recent years. One of these threats is modification of the hydrologic regime – either increasing or decreasing the length of time a wetland is saturated or flooded or the amount of flooding. Moderate changes in hydrology may change the vegetation of a wetland and therefore its suitability for specific wetland dependent wildlife. More drastic changes may convert wetland to upland or deepwater habitat. Another major threat to wetlands is changes in land use and associated pollution; runoff from impervious surface presents many of the same dangers to wetlands as to surface water bodies.

3. Ecology

Significant natural sites are areas in the State where unique or valuable natural resources exist. Figure V-6 "Areas of Critical Concern" identifies the natural areas of particular interest for rare species habitat and exemplary plant communities as well as wetland areas and surface water bodies. Table V-5 Lists rare species found in Cumberland. Significant natural sites in Cumberland include include:

- **Ash Swamp Brook, Ash Swamp, Pine Swamp, Scott Brook, Lippitt Estates, and Long Brook** – Together, these areas constitute one of the most significant natural systems in Cumberland. The circumneutral (lime based) soils are highly unusual in Rhode Island, which has mostly acidic soils. These soils support exemplary plant communities and rare species habitat. Land in this area is owned by both the Town and private individuals. Areas surrounding Long Brook and Scott Brook areas have been recently acquired by the Town and the Cumberland Land Trust under the State's Open Space Grant Program.
- **Lonsdale Marsh (Valley Falls Pond)** – Considered one of the most valuable freshwater wetlands in Rhode Island according to the R.I. Natural Heritage Program. The area's habitat diversity, which includes several wetland types, support at least five state-listed species of birds. This site is owned in part by the State and the Town.

Several other sites in Cumberland contain rare plant species and are ecologically significant natural areas. If not already preserved in their entirety, these areas are top priorities for protection. Lands adjacent to these areas are equally important and every effort should be made to protect them as well. The sites and their locations are shown in Table V-4.

Table V-4 Significant Natural Areas

<u>ID</u>	<u>Name</u>	<u>Location</u>
	Pine Swamp	Lands south and north of Rte. 121, Cook Road to Wrentham
	Catamint Brook	Tower Hill Road to Diamond Hill State Park extension
	Diamond Hill Town Park	Both Sides of Diamond Hill Road
	Sneech Pond Reservoir	Lands and streams surrounding reservoir
	Long Brook	Diamond Hill Road west to Little Pond County Road
	Nate Whipple Wetlands	Pound Road to Nate Whipple Highway
	Scott Brook	Surrounding Area
	Millers Oak Conservation Area	Hines Road to North Attleboro line
	Valley Falls Marsh	Southern Cumberland – Blackstone River to Lonsdale marsh

A list of rare species found in Cumberland compiled by the Rhode Island Natural Heritage Program, and current as of 2003, is included in Table V-5. In addition to those rare species listed in Table V-5, there are many other birds and wildlife that can be commonly found in the Town. Table V-6 shows vertebrates found in Cumberland, Table V-7 shows birds that breed in Town, and Table V-8 lists migratory birds found in Cumberland.



Table V-5 Rare Species

Scientific Name	Common Name	Family	Last Ob
<i>Agalinis acuta</i>	Sandplain Gerardia		1941
<i>Botaurus lentiginosus</i>	American Bittern	Ardeidae	1978
<i>Caulophyllum thalictroides</i>	Blue Cohosh	Berberidaceae	1976
<i>Caulophyllum thalictroides</i>	Blue Cohosh	Berberidaceae	
<i>Caulophyllum thalictroides</i>	Blue Cohosh	Berberidaceae	1990
<i>Caulophyllum thalictroides</i>	Blue Cohosh	Berberidaceae	1990
<i>Platanthera hookeri</i>	Hooker's Orchid	Orchidaceae	1885
<i>Agalinis tenuifolia</i>	Slender Gerardia	Scrophulariaceae	1946
<i>Agalinis tenuifolia</i>	Slender Gerardia	Scrophulariaceae	1871
<i>Asclepias quadrifolia</i>	Four-Leaved Milkweed	Asclpiadaceae	1979
<i>Cypripedium pubescens</i>	Large Yellow Lady's Slipper	Orchidaceae	1985
<i>Gentianopsis crinita</i>	Fringed Gentian	Gentianaceae	1854
<i>Hypericum adpressum</i>	Creeping St. John's-Wort	Clusiaceae	1914
<i>Liparis loeselii</i>	Yellow Twayblade	Orchidaceae	1985
<i>Penthorum sedoides</i>	Ditch Stonecrop	Saxifragaceae	1900
<i>Rhynchospora macrostachya</i>	Tall Beaked Rush	Cyperaceae	1911
<i>Rhynchospora macrostachya</i>	Tall Beaked Rush	Cyperaceae	1856
<i>Rhynchospora macrostachya</i>	Tall Beaked Rush	Cyperaceae	1986
<i>Ribes hirtellum</i>	Smooth Gooseberry	Grossulariaceae	1846
<i>Saxifraga pennsylvanica</i>	Swamp Saxifrage	Saxifragaceae	1985
<i>Solidago flexicaulis</i>	Zigzag Goldenrod	Asteraceae	1985
<i>Triosteum aurantiacum</i>	Wild Coffee	Caprifoliaceae	1932
<i>Tricstem perfoliatum</i>	Feverwort	Caprifoliaceae	1876
<i>Lampetra appendix</i>	American Brook Lamprey	Petromyzontidae	1981
<i>Asclepias exaltata</i>	Poke Milkweed	Asclepiadaceae	1878
<i>Botrychium matricariifolium</i>	Daisy-leaf Grape-Fern	Ophioglossaceae	1947
<i>Corallorhiza trifida</i>	Early Coralroot	Orchidaceae	1985
<i>Eleocharis equisetoides</i>	Horsetail Spike-rush	Cyperaceae	1877
<i>Equisetum fluviatile</i>	Wild Horsetail	Equisetaceae	1947
<i>Hedeoma pulegioides</i>	American Pennyroyal	Lamiaceae	1876
<i>Hottonia inflata</i>	Featherfoil	Primulaceae	1971
<i>Isoetes echinospora</i> ssp. <i>muricata</i>	Pontet Quillwort	Isoetaceae	1942
<i>Isoetes engelmannii</i>	Engelmann's Quillwort	Isoetaceae	1942
<i>Isoetes riparia</i> var. <i>canadensis</i>	River Quillwort	Isoetaceae	1942
<i>Lilium canadense</i>	Canada Lily	Liliaceae	1895
<i>Ranunculus flabellarius</i>	Yellow Water-Crowfoot	Ranunculaceae	1987
<i>Sambucus racemosa</i> ssp. <i>pubens</i>	Red=Berried Elderberry	Caprifoliaceae	1878
<i>Utricularia gibba</i>	Humped Bladderwort	Lentibulariaceae	1981
<i>Viola pubescens</i> var. <i>eriocarpa</i>	Smooth Yellow Violet	Violaceae	1990

Table V-5 Rare Species

Scientific Name	Common Name	Family	Last Obs.
<i>Acer pensylvanicum</i>	Striped Maple	Aceraceae	1937
<i>Arethusa bulbosa</i>	Swamp Pink	Orchidaceae	1907
<i>Arethusa bulbosa</i>	Swamp Pink	Orchidaceae	1904
<i>Arethusa bulbosa</i>	Swamp Pink	Orchidaceae	
<i>Asclepias Amplexicaulis</i>	Blunt-Leaved Milkweed	Asclepiadaceae	1905
<i>Asplenium trichomanes</i>	Maidenhair Spleenwort	Aspleniaceae	1947
<i>Aster macrophyllus</i>	Large-Leaved Aster	Asteraceae	1878
<i>Aster macrophyllus</i>		Asteraceae	1884
<i>Conopholis americana</i>	Squaw-Root	Orobanchaceae	1990
<i>Equisetum sylvaticum</i>	Woodland Horsetail	Equisetaceae	1947
<i>Equisetum sylvaticum</i>	Woodland Horsetail	Equisetaceae	1914
<i>Lobelia dortmanna</i>	Water Lobelia	Campanulaceae	1895
<i>Lupinus Perennis</i>	Wild Lupine		1878
<i>Matteuccia struthiopteris</i>	Ostrich Fern	Aspleniaceae	1990
<i>Sorghastrum nutans</i>	Indian Grass	Poaceae	1903
<i>Zizia aurea</i>	Golden Alexanders	Apiaceae	1985
<i>Zizia aurea</i>	Golden Alexanders	Apiaceae	1879
<i>Eriophorum alpinum</i>	Northern Cotton-grass	Cyperaceae	1907
<i>Eupatorium aromaticum</i>	Snakeroot	Asteraceae	1941
<i>Eupatorium aromaticum</i>	Snakeroot	Asteraceae	1946
<i>Gentiana andrewsii</i>	Bottle Gentian	Gentianaceae	1914
<i>Parnassia glauca</i>	Grass-of-Parnassus	Saxifragaceae	1900's
<i>Podostemum ceratophyllum</i>	Riverweed	Podostemaceae	
<i>Woodsia ilvensis</i>	Rusty Woodsia	Aspleniaceae	1908
<i>Vermivora chrysoptera</i>	Golden-Winked Warbler	Emserizidae	1956
Southern New England Circumneutral Seepage Swamp			1985
<i>Panax quinquefolius</i>	American Ginseng	Araliaceae	2002
<i>Hattonia inflata</i>	Featherfoil	Primulaceae	2002
<i>Geranium bicknellii</i>	Bicknell's Geranium	Geraniaceae	1995
<i>Corydalis sempervirens</i>	Pale Corydalis	Fumariaceae	2003
<i>Cicindela rufiventris</i>	Red-bellied Tiger Beetle	Cicindelidae	2000

Table V-6 Vertebrates

<u>Amphibians</u>	<u>Reptiles</u>	<u>Mammals</u>	<u>Mammals (Cont)</u>
Spotted Salamander	Snapping Turtle	White-tailed Deer	Meadow Vole
Marbled Salamander	Painted Turtle	Short-tailed Weasel	Muskrat
Dusky Salamander	Spotted Turtle	Meadow Jumping Mouse	Norway Rat
Two-lined Salamander	Stinkpot	Star-nosed Mole	House Mouse
Four-toed Salamander	Northern Black Racer	Little Brown Myotis	Coyote
Red-spotted Newt	Northern Ringneck Snake	Big Brown Bat	Red Fox
Redback Salamander	Eastern Milk Snake	Eastern Cottontail	Raccoon
American Toad	Northern Water Snake	New England Cottontail	Mink
Spring Peeper	Northern Brown Snake	Eastern Chipmunk	Striped Skunk
Gray Tree Frog	Eastern Garter Snake	Woodchuck	River Otter
Bullfrog	Eastern Smooth Green Snake	Gray Squirrel	Opossum
Green Frog		Red Squirrel	Masked Shrew
Pickerel Frog		Southern Flying Squirrel	Short-tailed Shrew
Wood Frog		White-footed Mouse	

Table V-7 Breeding Birds

<u>Species</u>	<u>Species</u>	<u>Species</u>	<u>Species</u>
Green-backed Heron	Hairy Woodpecker	Wood Thrush	Northern Oriole
Canada Goose	Downy Woodpecker	Hermit Thrush	Common Grackle
Mallard	Eastern Kingbird	Veery	Brown-headed Cowbird
American Black Duck	Great Crested Flycatcher	Eastern Bluebird	Scarlet Tanager
Wood Duck	Eastern Phoebe	Blue-Gray Gnatcatcher	Northern Cardinal
Turkey Vulture	Least Flycatcher	Cedar Waxwing	Rose-breasted Grosbeak
Red-tailed Hawk	Eastern Wood Pewee	European Starling	Indigo Bunting
Broad-winged Hawk	Tree Swallow	Yellow-throated Vireo	Purple Finch
American Kestrel	Bank Swallow	Red-Eyed Vireo	House Finch
Ruffed Grouse	Rough-winged Swallow	Warbling Vireo	American Goldfinch
Killdeer	Barn Swallow	Black-and-White Warbler	Rufous-sided Towhee
American Woodcock	Blue Jay	Yellow Warbler	Savannah Sparrow
Spotted Sandpiper	Common Crow	Pine Warbler	Chipping Sparrow
Rock Dove	Black-capped Chickadee	Prairie Warbler	Field Sparrow
Mourning Dove	Tufted Titmouse	Ovenbird	Swamp Sparrow
Yellow-billed Cuckoo	White-breasted Nuthatch	Louisiana Water thrush	Field Sparrow
Black-billed Cuckoo	Red-breasted Nuthatch	Common Yellowthroat	Swamp Sparrow
Eastern Screech Owl	Brown Creeper	American Redstart	Song Sparrow
Great Horned Owl	House Wren	House Sparrow	Mute Swan
Chimney Swift	Northern Mockingbird	Bobolink	Virginia Rail
Belted Kingfisher	Gray Catbird	Eastern Meadowlark	Sora
Northern Flicker	Brown Thrasher	Red-Winged Blackbird	Marsh Wren
Red-Bellied Woodpecker	American Robin	Orchard Oriole	

Table V-8 Migratory Birds

<u>Species</u>	<u>Species</u>
Pied-billed Grebe	Double-crested Cormorant
Great Blue Heron (w)	Great Egret
Black-crowned Night Heron	Canada Goose (w)
Green-winged Teal	Northern Pintail
Blue-winged Teal	American Wigeon
Ring-necked Duck	Common Goldenly
Bufflehead	Hooded merganser
Common Merganser (w)	Ruddy Duck
Osprey	Bald Eagle (w) - rare
Greater Yellowlegs	Common Snipe
Ring-billed Gull (w)	Herring Gull (w)
Great Black-backed Gull (w)	

w-Remain in area during winter as long as open water persists.

C. Findings

The analysis of natural resources within the Town was undertaken to identify the bountiful resources that need protection in order to maintain the Town's quality of life and character. Additionally, certain environmental constraints will limit particular types of development. It can also be used to identify where natural conditions are appropriate for particular kinds of activity. The long-range development plan must consider natural conditions as they relate to limiting or encouraging particular kinds of development. The following is a summary assessment of the natural resources within the Town of Cumberland. This summary provides a basis for identifying the specific goals and policies for natural resource management.

Geology - The surficial geology of the Town is a product of glaciation and consists primarily of till. There are also major areas of outwash containing sand and gravel; these areas are suitable for ground water resources.

Large areas of the Town have soil properties which severely limit the use of Individual Sewage Disposal Systems. High water tables, shallow depth to bedrock, and slow permeability are typical of these soil properties.


Calcareous bedrock called "greenstone" is located in the northern and central portions of the Town of Cumberland.

There are approximately 2,305 acres of prime agricultural soils in Cumberland. Approximately 1,000 of these acres are currently either vacant or being used for agricultural purposes.

Large areas of the Town are occupied by steep slopes. Prominent topographic features are associated with Diamond Hill, Brush Hill, Bear Hill, Copper Mine Hill, Thompson Hill and the bluffs along the banks of the Blackstone River.

Hydrology - Cumberland has extensive surface and ground water resources. Two highly productive, stratified drift ground water aquifers are located in the Town. These aquifers serve as a source for public water supply. The Blackstone Valley and Abbott Run Valley aquifers are used by the Pawtucket and Cumberland water supply systems. The Pawtucket Water Supply Board has its wells in the Abbott Run aquifer and the Cumberland Water system has its wells in both the Blackstone and Abbott Run aquifers.

The Blackstone River and the Pawtucket Reservoir systems are the largest watersheds within the Town. The Pawtucket Reservoir watershed contains many surface water bodies including Diamond Hill Reservoir, Arnold Mills Reservoir, Rawson Pond, Howard Pond, Robin Hollow Pond and Happy Hollow Pond. The entire northeast part of the Town drains to the Pawtucket Reservoir system.

Ecology - Several significant natural sites are located in Cumberland, these sites provide habitat for a variety of the State's rare native animals. These include State listed freshwater mollusks, odonates, tiger beetles, grebe, southern flying squirrel, northern leopard frog, the ringed boghaunter dragonfly, and the American brook lamprey. Other species found in the Town include the marbled and spotted salamander, wood frog, marsh wren, hermit and wood thrush, oriole, bluebird, wild turkey and herons. urring mammals include the coyote and fisher. Eagles have been identified at Diamond Hill Reservoir and undocumented bobcat and mountain lion sitings have been reported in Lippitt Estates.


D. GOALS, POLICIES, AND RECOMMENDATIONS

Goals and policies for natural resources management were formulated based on the inventory and analysis of the previous sections. In formulating the natural resource goals for the Town of Cumberland it is important to recognize the mutually compatible interest of the State and of the Town. The State has formulated natural resource goals which local plans should consider.

State Planning Act Goals

- To promote orderly growth and development that recognizes the natural characteristics of the land, its suitability for use, and the availability of existing and proposed public and/or private services and facilities.
- To promote the protection of the natural, historic and cultural resources of each municipality and the State.
- To promote the preservation of the open space and recreational resources of the municipality and state.
- To encourage the use of innovative development regulations and techniques that promote the development of land suitable for development while protecting our natural, cultural, historical and recreational resources and achieving a balanced pattern of land uses.

Cumberland Natural Resource Goals

Goal  1 Protect and preserve the Town's Natural Resources including unique environmental areas; surface and ground water quality and quantity; agricultural soils; and rural character.

Policy NR.1.1 Continue working with the Blackstone River Valley National Heritage Corridor Commission in identifying preservation opportunities and complementary land use activities.

Action NR.1.1.1 Prepare and Adopt Blackstone River Valley National Heritage Corridor Overlay District in the Zoning Ordinance.

Policy NR.1.2 Preserve Cumberland's unique natural areas through land acquisition, conservation easements, transfer of development rights, and other creative methods to limit development.

Action NR.1.2.1 Acquire, through fee simple land purchase, conservation easements, or purchase of development rights unique ecological areas, watershed areas, and special natural resource areas.

Action NR.1.2.2 Encourage land owners to participate in the Town's Farm, Forest, and Open Space taxation program.

Action NR.1.2.3 Assist the Cumberland Conservation Commission and organizations such as The Cumberland Land Trust and the Nature Conservancy, in encouraging property owners to protect environmentally sensitive areas by easements or donations to the Town

Policy N.1.3 Protect surface water and ground water from contamination.

Action NR.1.3.1 Prepare, adopt and implement a Watershed Protection Ordinance.

Action NR.1.3.2 Identify and include a Water Quality Protection Zone in the Watershed Protection Ordinance.

Action NR.1.3.3 Establish a Waste Water Management District within the Cumberland and Pawtucket Reservoir Watershed

Action NR.1.3.4 Continue to acquire properties that are in close proximity to reservoirs and reservoir tributaries to protect public drinking water supplies for the future.

Policy NR.1.4 Relate the type and intensity of development to the capability of the land to support such development.

Action NR.1.4.1 Improve the Development Plan Review process (formerly known as Site Plan Review, administered by the Design Review Commission) which requires consideration of the impact of development on Natural Resources.

Action NR.1.4.2 Clarify the Town's Zoning Ordinance regarding Residential Cluster Subdivisions in order to encourage more of this innovative land development technique, or consider adopting the State guidelines for Conservation Development as defined in the *Rhode Island Conservation Development Manual, June 2003*.

Policy NR.1.5 Encourage the preservation of prime agricultural soils and farmland for active agricultural use.

Policy NR.1.6 Cooperate with appropriate State agencies and encourage strict enforcement of regulations designed to protect environmentally sensitive areas.

VI. CULTURAL RESOURCES

A. INTRODUCTION

The Town of Cumberland is a special place whose community character and charm is derived from a unique combination of circumstances. The Town's hilly wooded uplands, numerous streams and broad fertile valleys, and the sharply defined Blackstone River Valley create a natural environmental setting overlaid by a rich record of human settlement. Historic mill villages, farms, scattered individual buildings, scenic roads, rural landscapes, stone walls, and sites chronicle the physical development of the Town. Yet more than simply a physical inventory, their form, location, and interrelationship with natural and manmade settings embody the story of Cumberland's residents and the events that shaped their lives, as well as creating a visually rich and aesthetically pleasing community character.

Cumberland's location in the Blackstone River Valley has strongly influenced the Town's character and cultural resources. The area is known as the Birthplace of America's Industrial Revolution, and many of the textile mills that used the River's power can still be found along the banks of the River. Although the Blackstone declined in importance as industry turned away from reliance on water power, in recent times great efforts have been made to restore the River and revitalize the surrounding area. The Blackstone River Valley National Heritage Corridor Act was signed into law in 1996, creating a volunteer commission and leading to significant funds invested in the areas historic and cultural resources. Since the John H. Chafee Blackstone River Valley National Heritage Corridor was created, there has been growing interest in, and knowledge of, the areas unique cultural heritage.

State Planning Act Requirements

According to the R.I. Comprehensive Planning and Land Regulation Act, the Natural and Cultural Resource Element "shall provide an inventory of the significant natural resource areas such as water, soils, prime agricultural lands, natural vegetation systems, wildlife, wetlands, aquifers, coastal features, flood plains and other natural resources and the policies for the protection of and management of such areas. The policies and implementation techniques must be identified for inclusion in the implementation program element."

The Act also requires consistency with State Guide Plan Elements:

- 110 Goals & Policies
- 131 Cultural Heritage & Land Management Plan
- 140 Historic Preservation

B. INVENTORY

The majority of Cumberland's cultural resources are associated with its origins as a series of industrial mill villages associated with the Blackstone River. Perhaps most obvious are the historic structures still in existence throughout the Town. However, additional resources also exist, these are inventoried in the following section of this Element.


1. Historic Sites and Districts

The Rhode Island Historical Preservation Commission (RIHPC) inventoried Cumberland's historic resources in 1990, their publication, *Historic and Architectural Resources of Cumberland, Rhode Island*, was updated 1998. This section summarizes the information contained in this document. In addition, the Public Archaeology Laboratory, Inc. prepared a *Historic Preservation Plan* for Cumberland's Historic District Commission in 1990. This plan provides technical information and sets forth goals, implementation strategies, and priorities to protect Cumberland's historical and cultural resources. For a more detail discussion on the historical resources and goals and implementation strategies for historical preservation for the Town of Cumberland the *Historical Preservation Plan* should be consulted. The locations of Cumberland's historic sites and districts are illustrated in Figure VI-1.

National and State Register Historical Property

A total of four historic districts and six individual properties in Cumberland have been listed in the National Register and State Register of historical property. Listed resources include the Town's most well-preserved villages, four eighteenth and nineteenth century houses (including one farm), a nineteenth century church, and a prehistoric archaeological site. For the most part, nominations have been prepared by the RIHPC as staff time and

state-wide programming priorities have allowed. The Sassafras Archaeological Site was discovered by archaeologists conducting a study for the Rhode Island Department of Transportation (RIDOT) on proposed replacement of the Albion Bridge. The following is a list of properties included in the National Register and State Register:

- Arnold Mills Historic District
- Ashton Historic District
- Berkeley Mill Village Historic District
- nsdale Historic District
- Furnace Carolina Site (RI-2045), on Abbott Run
- Tower-Flagg Barn Complex, 100 Abbott Run Valley Road
- Sassafras Archaeological Site, (RI-55), Albion Road
- Patterson Brothers House and Store, 159 Broad Street (Demolished 1998)
- Whipple-Jenkes House, 8 Fairhaven Rd. (Formerly 2500 Diamond Road)
- St. Joseph's Church Complex (c. 1872, 1888), 1301-1317 Mendon Road
- Lewis Tower House (1825), 2199 Mendon Road
- Luke Jillson House (c. 1752 et seq.), 2510 Mendon Road
- Burlingame/Noon House (c. 1800 et seq.), 3261 Mendon Road
- John Cole Farm (c.1775), Reservoir Road

Local Historic Districts

The Cumberland Historic District Commission (HDC) was established in 1987 by the Town under Title 45, Chapter 24.1 of the General Laws of Rhode Island. The HDC is empowered with responsibilities to safeguard the Town's heritage. Cumberland is a State Certified Local Government, which allows the Town to apply for federal 50 percent matching grants to be used in survey and planning projects within local historic districts. The following are currently designated Local Historic Districts:

- Old West Wrentham Road Historic District
- Tower Hill Road Historic District
- Ashton Historic District
- Lonsdale Historic District
- Upper Scott Road
- mond Hill Road (single property)

Eligible Historic Properties

In 1987 RIDOT conducted a state-wide inventory and evaluation of historic bridges under its jurisdiction. As a result, five nineteenth-century bridges and one twentieth-century highway bridge in Cumberland have been formally determined eligible for National Register listing:

- Arnold Mills Bridge, 1886, Sneece Pond Road (Arnold Mills Historic District)
- Church Street Bridge, 1881, Church Street
- Ashton Viaduct, 1934-1945, George Washington Highway (partially within the Ashton Historic District)
- Rawson Road Bridges, c. 1886, Rawson Road
- Howard Road Bridge, c. 1886, Howard Road

Properties recommended for further study

Along with the historic properties currently listed in the National Register of Historic Places and the State Register, a number of individual buildings and districts have been evaluated as eligible for listing. As new research is conducted, as the Town changes physically, and as perceptions of the community's history and what cultural properties are worth saving evolve, other potential candidates for the Register may be identified. The following is a list of districts, structures, and sites in the Town of Cumberland currently identified as deserving consideration for entry in the National Register and State Register.

- Abbott Run Early Industrial Sites Archaeological District
- Diamond Hill Village Historic District
- Rawson Road/ Abbot Run Historic District
- Tower Hill Road Historic District
- Valley Falls Historic District
- Follett/Carpenter House and Farm (c. 1800), 44 Angell Road
- Squire Senior Nicholson House/"Grayrock" (1920), 130 Angell Road
- Cumberland Town Hall (1894), 45 Broad Street
- John F. Clark House (1884), 91 Broad Street
- Commercial Building (Late 19th century), 159 Broad Street
- St. Patrick's Church, Rectory, Convent, and Parochial School (1861, et seq., 1936),

285 Broad Street

- G. Whipple Commercial Block (late 19th century), 3782 Diamond Hill Road
- Hixon Homestead/Maple Shade Farm (17th century, et seq.), 109 Hines Road
- Dormition of the Virgin Mary Orthodox Church (1908), 55 Fountain Street
- Former Post Office (late 19th century, 12-16 Mill Street
- Miller House (c. 1797), Tower Hill Road

Historic Cemeteries

As recommended by the 1991 Comprehensive Plan, Cumberland's historic cemeteries have been located and identified. While some of these properties are located on private property, others are Town owned and are maintained by the Department of Public Works. These cemeteries not only contain the graves of Cumberland's earliest citizens, but also contain examples of funerary art from different periods, and are an important historical record of the Town's past. The following cemeteries have been identified in Cumberland:

- St. Patrick's Cemetery - High Street
- St. John's Ukrainian Cemetery - Hewes Street
- Cumberland Cemetery - Dexter Street
- Old Indian Cemetery - Dexter Street
- St. Basil's Cemetery - Curran Road
- Mt. Calvary Cemetery - Curran Road
- Blackstone Lot - Broad Street
- St. Joseph's Cemetery - Mendon Road
- Ballou Cemetery - Mendon Road
- St. John's Episcopal Cemetery (Cemetery Ashton) - Mendon Road
- Our Lady of Atonement - Diamond Hill Road
- Nine Mens Misery Cemetery - Diamond Hill Road
- Brown-Bartlett Cemetery - Mendon Road
- Bartlett Cemetery - Mendon Road
- Carpenter Lot - Mendon Road
- Weeden Cemetery - Nate Whipple Highway
- Staples Family Lot - Nate Whipple Highway
- Pickering & Staples Lot - Nate Whipple Highway
- Peck Cemetery (Cemetery Near Arnolds Mills) - Abbott Run Valley Road
- Metcalf Cemetery - Abbott Run Valley Road

- Quaker Cemetery – Abbot Run Valley Road
- Evergreen Cemetery – Nate Whipple Highway
- Arnolds Mills Cemetery – Nate Whipple Highway
- Old Diamond Hill Cemetery – Reservoir Road
- New Diamond Hill Cemetery – Reservoir Road
- Weatherhead Family Lot – Mayflower Drive
- Elder Ballou Meeting House Cemetery – Elder Ballou Meeting House Road
- Whipple Cemetery – Elder Ballou Meeting Hose Road
- No Name Cemetery – Torrey Road (not located)
- Wilcox Family Lot – Manville Hill Road (not located/developed)
- Scott Lot – West Wrentham Road
- Wilkinson Cemetery & Tomb – Angell Road
- Kimball Lot – Kimball Street & Willis Drive
- Cook-Carpenter Lot – Apache Lane

2. Cultural Events and Resources

In addition to Cumberland’s rich historical resources, Cumberland’s cultural resources include various cultural events and groups, as well as many churches. Some of these resources have been in existence for many years, while others are fairly new.

The Arnold Mills Fourth of July Parade has been held annually since 1927, it is preceded by a road race and is followed by a “Concert on the Green” in front of the Arnold Mills United Methodist Church.

Every Victory Day weekend, a three-day Cumberlandfest, which includes food, entertainment, crafts and fireworks, is held at Diamond Hill Town Park. This festival is the Blackstone Valley’s largest summer family celebration.

In Valley Falls, several annual events take place in celebration of the area’s prominent Portuguese population. These include a parade and procession held each June at the Lusitania Club for the Feast of St. John, the largest Day of Portugal Celebration in Rhode Island, which has been supported by the Town in recent years, and the yearly Our Lady of Fatima feast and procession are held at the church of the same name.

The Blackstone River Theatre is non-profit cultural art center, whose focus is on cultural events and programs specific to the Blackstone River Valley. The Theatre presents music concerts, folk dances, children's events, as well as other special events.

The Arnold Mills Community House also hosts cultural events.

Religious Resources

A number of religious institutions of various denominations are located in Cumberland; some of which were identified in previous sections. The following is a list of Churches located within the Town.

- *Baptist*- Blackstone Valley Baptist Church, Fellowship Baptist
- *Catholic* - Our Lady of Fatima, St. Aidan's Church, St. Joan's Church, St. John Baptist Mary Vianney, St. Joseph's Church, St. Patrick's Church
- *Episcopal* - Emmanuel Episcopal Church, St. John's Episcopal Church
- *Methodist* - Arnold Mills United Methodist Church Cumberland Community Methodist Church
- *Orthodox* - Dormition of the Virgin Mary
- *Presbyterian* - Calvin Presbyterian Church
- *Other* - Blackstone Valley Church of Christ Providence Zen Center

These religious and cultural resources bind the community and improve the quality of life here. As the community becomes more and more developed, it is these resources that will remain unique to Cumberland and that will give it a sense of place.

C. FINDINGS

Cumberland's historic buildings, villages, archaeological sites, country roads, rural landscapes, stone walls, and burying grounds are a significant record of the Town's history. Once lost, they cannot be recovered, and their loss alters the character and quality of the community. The major threats to Cumberland's cultural resources are primarily associated with unsympathetic and uncontrolled development.

The Town of Cumberland has a total of four historic districts and fifteen individual properties listed on the National and State Register. In addition there are four local Historic Districts. Numerous individual buildings and several areas have been identified as being eligible for National Register consideration. There are also 34 historical cemeteries in Cumberland, which are distributed throughout the Town. Cemeteries include both small family plots as well as larger burial grounds, some of which are associated with a nearby church.

Cumberland's varied historic engineering structures include dams and water canal systems associated with the numerous mills primarily along the Blackstone River and Abbott Run, and a fine collection of five iron-truss bridges erected in the 1880's, four located on Abbott Run and one in Valley Falls. In addition, there are several late nineteenth-century stone-arch bridges, the monumental Ashton Viaduct highway bridge (1934-45), and, in the northeast corner of Town, the Diamond Hill and Arnold Mills Reservoirs, both major civil engineering works built in the late nineteenth and early twentieth century.

The analysis of past preservation activities in Cumberland reveals that important steps have been taken by Cumberland to safeguard this valuable heritage. Yet, in order to adequately protect the Town's cultural resources, additional actions are required. Preservation planning is a dynamic process rather than a static goal to be achieved once and for all.

While for the purposes of preservation planning Cumberland's survey is current, it should not be considered final. In particular, comprehensive building-by-building inventories do not exist for Diamond Hill Village, Cumberland Hill, or Valley Falls. The Town's early-twentieth-century, summer resort and suburban residential developments have not been studied in detail, and recorded data on prehistoric and historic archaeological sites is

limited. In addition, as time passes, new properties may be identified which deserve inclusion in the Inventory. In order to sustain a preservation planning process, the Town needs to continually update and expand this crucial database.

Along with the historic properties currently listed in the National Register of Historic Places and the State Register, a number of individual buildings and districts have been evaluated as eligible for listing. Research and nomination preparation remains to be done for these properties, as well as evaluation of additional properties.

D. GOALS, POLICIES, AND RECOMMENDATIONS

The goals and policies for cultural resources were formulated based on the inventory and analysis of the previous sections. The State has formulated cultural resource goals which local plans must consider because of the mutual interest of both the State and the Town in recognizing and protecting cultural resources.

State Planning Act Goals

- To promote the protection of the natural, historical and cultural resources of each municipality and the state.
- To encourage the use of innovative development regulations and techniques that promote the development of land suitable for development while protecting our natural, cultural, historical and recreational resources and achieving a balanced pattern of land uses.

Cumberland Cultural Resources Goals

Goal CR.1 PROTECT AND PRESERVE PROPERTIES OF HISTORIC AND ARCHITECTURAL SIGNIFICANCE

Policy CR.1.1 Continue to allow the Historic District Commission to review and comment on projects which may adversely impact the historic landscapes or the setting of historic properties.

Action CR.1.1.1 Enhance the Design/Development Plan Review process which includes a review of the effects of each proposed development on adjacent historical and cultural resources.

Action CR.1.1.2 Examine the feasibility of adopting a Demolition Delay Ordinance in order to give the Town a window during which a means may be found to protect and preserve a historic structure.

Policy CR.1.2 Expand the role of the Historic District Commission as the primary historic preservation advocate in Cumberland. Provide additional and formalized mechanisms for the HDC to review and comment on development projects and to work with property owners to preserve historic and archaeological sites.

Action CR.1.2.1 Integrate Historic Preservation Planning concerns with other areas of municipal planning and decision-making.

Action CR.1.2.2 Regularly update the inventory of Historical and Architectural Resources.

Goal CR.2 PROTECT AND PRESERVE CONFIRMED AND POSSIBLE ARCHAEOLOGICAL SITES

Policy CR.2.1 Collect and maintain information on known archaeological sites and areas of archaeological sensitivity, and devise a mapping system with generalized archaeological site information.

Goal CR.3 PRESERVE, PROTECT AND PROMOTE AWARENESS OF HISTORIC CEMETERIES

Policy CR.3.1 Maintain and update an inventory of historic cemeteries and their condition.

Goal CR.4 PRESERVE AND PROTECT HISTORIC TOWN-OWNED STRUCTURES AND REUSE HISTORIC TOWN BUILDINGS

Policy CR.4.1 Develop and implement a regular maintenance program for Town-owned historic buildings.

Policy CR.4.2 Establish a committee to study vacant Town-owned historic

buildings and develop recommendations for their reuse.

Goal CR.5 PROMOTE AWARENESS AND EDUCATION OF CUMBERLAND'S
CITIZENS ABOUT THE TOWN'S HISTORIC, CULTURAL AND
ARCHAEOLOGICAL RESOURCES

Policy CR.5.1 Continue and expand the existing educational programs of the
Historic District Commission, including the historic technical
publications donations to the library.

Action CR.5.1.1 Design, produce and distribute interpretive materials
that describe the historical, cultural and recreational
resources of the Town.

Policy CR.5.2 Develop new educational tools to assist the Town citizens and
visitors to appreciate and understand Cumberland's rich visual
and historical heritage.

Action CR.5.2.1 Prepare and adopt a Blackstone River Valley National
Heritage Corridor Overlay District in the Zoning
Ordinance to improve public access and awareness of
the river's historical and material qualities.

VII. PUBLIC SERVICES AND FACILITIES

A. INTRODUCTION

The ability of public facilities and services to meet the needs of a community's population is directly related to the community's rate of growth and population change. Furthermore, the demand for specific services is dependent on the impact of change on a variety of functional areas of the community. The comprehensive planning process, therefore, must respect this relationship by providing the framework within which to forecast and anticipate the future demands of a community. Similarly, it is necessary to assess the community's ability to supply services at a level that is consistent with the stated goals of the community both now and in the future.

In 1990, the information contained in the Public Facilities and Services Element was based on interviews with Town Officials, research of technical documents, and data from a community survey. Similar methods were employed in this update: Department representatives and/or Commission members were interviewed concerning their respective public service activities, and both technical publications and facility plans were reviewed. The exception is the community survey; for this update community attitudes towards public facilities and services in the Town of Cumberland were ascertained from a series of public workshops. Results of these workshops were similar to that of the 1990 survey: Cumberland residents were overwhelmingly satisfied with the quality of community services and facilities. However, The Town is aware that expansion and upgrading of Town Hall office space and meeting facilities is necessary in order to continue to provide quality municipal services.

There is a growing recognition that the availability of services, such as water and sewer, has a direct impact on increased traffic and residential activity. The Town has been actively trying to manage growth for the past few years. The pressure on existing services, the cost of new services (compared to revenue collected), and the indirect impact of additional services are adversely impacting the Town's residents and character.

State Planning Act Requirements

According to the R.I. Comprehensive Planning and Land Use Regulation Act, the Services and Facilities Element shall "Provide an inventory of existing and forecasted needs for facilities and services used by the public such as, but not limited to, educational facilities, public safety, water, sanitary sewers, libraries and community facilities. The Policies and implementation techniques must be identified for inclusion in the implementation program element."

The Act also requires consistency with State Guide Plan Elements:

- 110 Goals and Policies
- 121 State Land Use Policies and Plan
- 171 Solid Waste Management Plan
- 721 Water Supply Policies for RI
- 722 Water Supply Plan for RI
- 723 Water Emergency Response Plan

B. INVENTORY

This section contains a description of each of Cumberland's services and facilities; locations of these facilities can be seen in Figure VII-1. For each service and facility, personnel and equipment is inventoried. In addition, issues related to the facility or service are discussed, this includes issues identified in the original Plan as well as new issues that have arisen over the past decade.

1. Public Safety

Public safety in the Town of Cumberland is the responsibility of three entities: Police, Fire Departments, and Rescue Services. For each area of public safety, this section inventories personnel and equipment, summarizes changes that have taken place since the original Plan, and identifies areas of concern as well as future plans.

Police Department

The Cumberland Police Department is located on Diamond Hill Road. The Department recently received National Accreditation from the Commission on Accreditation of Law Enforcement Agencies (CALEA), a distinction received by only one percent of the country's Police Departments. The Department is currently (2003) staffed with 56 personnel. This includes the Chief of Police, a Deputy Chief, 3 Captains, 9 Sergeants, 12 Patrol Officers, 3 Detectives, 1 Juvenile Detective, a School Resource Officer, 2 Recruit Officers and 9 non-sworn staff. The Department operates 30 vehicles. The Department's "4 and 3" shift structure (four days on three days off) allows for staff overlap during peak hours - 9:30 P.M. to 1:30 A.M. The Department publishes an annual report including information about Departmental personnel and programs, as well as crime and accident statistics in the community.

The Police headquarters were expanded in 1989, nearly doubling the facility in size with the completion of a new 3,200 square foot second floor. The daily operations of the Police Department are consolidated on the first floor for ease of access. More recently, interior renovations have been completed to improve use and efficiency of the building.

The Department is involved in a variety of special programs. These include youth oriented programs such as the High School Career Academy, "Cops that Care" after school tutorial, Police Adopting Students and Schools (PASS), Eliminating Alcohol Sales to Youth (EASY), Drug Awareness Resistance Education (DARE); as well as Selective Traffic and Radar Enforcement for Safer Streets (STRESS), a traffic calming program, the Citizens Police Academy, and a Crimestopper program.

Issues: In 1991, Chief DiTano identified two short-range goals. One first was to improve Department training through implementation of the Law Enforcement Training Network (LETN), a satellite-operated series of training topics for law enforcement personnel. This network was implemented and resulted in improved training. However, since then new, more effective training techniques have been devised and use of the LETN has been discontinued. Chief DiTano's second short-term goal was the construction or modification of existing detention cells to provide adequate facilities for women. This has been accomplished; Chief Silva cited the stringent standards necessary for detention areas set forth by CALEA, all of which the Cumberland Police Department is in compliance with.

As a long-range goal, Chief DiTano discussed improvements to the communications system, as communications with patrol cars in several areas of Cumberland was poor. Several years ago the Department received a sizeable grant of funds for the implementation a new communication system; implementation of this system has greatly improved communications.

According to Chief DiTano, the primary long-term goal of the Cumberland Police Department was to ensure that the force size is equal to the growing needs of the community in order to maintain the current level of quality police service. Chief Silva believes this has not in fact occurred: the force has only increased by four officers (whose salaries are paid by Federal grants) over the past decade, while the population has increased significantly.

Other goals for the Cumberland Police department identified by Chief DeSilva include:

- Maintaining CALEA accreditation through proof of compliance with standards;
- complying with new training procedures and the Homeland Security Act;
- achieving any objectives in the Department's 1999 five-year strategic plan that have not been implemented, including the recruitment of an additional police dispatcher and improving parking at the Police Department.

It should also be noted that the Policies, like Rescue Services and the Department of Public Works, have regular capital improvement needs, i.e., vehicles. A program should be instituted whereby those needs can be anticipated and met. In 2003, for example, 3 vehicles need replacement and the parking lot needs improvement.

Fire Protection

Cumberland's fire protection services are divided into four separate Fire Districts: Cumberland, Cumberland Hill, North Cumberland, and Valley Falls. Each is operated through state-chartered corporations and has individual taxing powers. The Stations employ a total of 56 full-time personnel and approximately 43 call/volunteer personnel. Combined, the fire stations operate 22 vehicles including 5 pumper trucks, 2 engines, 2 Quint ladder/pumps, 2 boats, 3 brush trucks; in addition, each Station has a Chief's vehicle.

Cumberland Fire District

The Cumberland Fire District was created in 1992 when the Ashton and Berkeley Fire departments merged. The headquarters of this new District is located in what was previously the Ashton Fire Station. The Station has two engines, a brush truck, and a Chief's vehicle. There are 14 full-time personnel and five on-call volunteers

Issues: In 1991 Vincent Hoyer, Chief of the Ashton Fire District, stated that improvements to individual house numbering was necessary, as homes were often missing proper identification numbers, or had stylized script markings that were difficult to see. Current Chief Garin noted that this problem has for the most part been eliminated through the implementation of a new Cumberland Town Ordinance, which requires clear and obvious addressess. Chief Hoyer also noted that fire hydrants installed prior to current codes are often too far apart. Chief Garin acknowledges this is still a problem in older development, but that in new subdivisions Fire Chiefs are consulted for the best siting of hydrants. Also in 1991, Chief Harry Audette of the Berkeley Fire District felt the greatest challenge facing the station was the recruitment of sufficient call personnel. This problem has been addressed by increasing the number of full-time paid Fire Department personnel.

One of the main issues now facing the Cumberland Fire Department is the inadequacy of current facilities. In 1991 the Station housed only three full-time staff. Despite renovations undertaken in 1992, there is not enough space for Station personnel. To remedy this deficiency the Fire District is working on purchasing property located on Angell Road to use as a combined Fire and Rescue Service headquarters.

Chief Garin is strongly in favor of consolidating the four Cumberland Fire Districts. In support of this, he cites the success of the Ashton-Berkeley merger. He feels that utilizing a phased-in approach to merging the Districts might be a solution to the increased costs associated with staffing a consolidated Fire Department.

Cumberland Hill Fire District

The Cumberland Hill Fire Station operates two pumper trucks, a brush truck, a utility vehicle, one command vehicle, and a boat. The station is staffed by 14 full-time personnel, including a fire prevention expert and Fire Marshall; as well as 13 call personnel.

Issues: In 1990, Chief Kenneth Sweich felt that the greatest issue facing the Cumberland Hill Fire Department was the possibility of consolidating the Department into one District with the potential of becoming a full-time, unionized fire department. The Chief felt that the system of utilizing call personnel to supplement full-time firefighters was far more cost-effective than any potential savings that would arise through consolidation of the Fire Districts. Current Chief Richard Susi agrees with this assessment, he cited a study which demonstrated that consolidation of Fire Departments would not in fact be cost effective for the Town. He believes that the current system works well, but that it may be necessary to reconsider consolidation in the future.

Due to the continued difficulty in recruiting volunteer, on-call personnel daytime shift staffing has been increased from two to three people per shift; this staffing level may need to be further increased.

The Cumberland Hill Fire Department is placing more emphasis on fire prevention via code inspection and enforcement; to this end a Fire Prevention Expert and Fire Marshall have been added to the staff.

While concerns about the lack of sufficient fire hydrants were discussed in 1991, Chief Susi believes that placing hydrants in areas of the District that do not currently have them may lead to increased density of development.

North Cumberland Fire District

The North Cumberland Fire District operates one pumper truck, a Quint pump/ladder combination, a brand new brush truck, and a new utility trailer equipped with a boat and ice rescue sled for operations on the Diamond Hill and Arnold's Mills Reservoirs, and the Chief's vehicle. The station employs 14 full-time fire fighters and eight call personnel.

Issues: In the 1991 Plan, Chief Jesse Carpenter was most concerned with issues related to the overwhelming rural character of the District. Developments in areas with large lot zoning did not necessarily include public water service or hydrants. In order to provide adequate fire protection to these new developments the Chief felt it would be necessary to increase tank truck capacity and/or the construct another station in the North Cumberland District; or to require the installation of residential sprinklers in homes built without

hydrant service. Despite the population growth over the past decade, this area of Town is still essentially rural and these difficulties remain. Parts of the District have no public water supply, and therefore must rely on tankers; this leads to longer response times than in areas where municipal water is available. According to Chief Rene Gendreau, the plan for District consolidation would have solved this problem as it would have redrawn the Fire Districts in order to reduce response times; time trials undertaken during the planning process support this assessment.

The Chief feels that cooperation between the Town's Fire Departments has improved dramatically in recent years. The four Departments, along with the Rescue Services, meet monthly to discuss issues facing the Town. The Departments now operate according to standard procedures, a Town-wide accountability system and new command structure have been developed, and the Departments train as a single unit. The Departments take turns hosting training, and share training grants among themselves. In addition, the Departments confer when personnel or vehicles are unavailable in order to ensure adequate protection is always available in the Town.

Unlike some of the other Districts, new fire codes will have little impact on North Cumberland as no facilities that serve alcohol are located within the District. However, the Chief has some concerns about enforcing current codes when new ones are being developed at the State House.

Chief Gendreau is strongly in favor of consolidation of Cumberland's Fire Departments. He believes such an action would result in faster response times and therefore increased safety. Although the Fire Departments continue to operate as separate entities, he is pleased with the improvements in inter-departmental cooperation that has developed over recent years. He feels one of the most significant improvements is that Departments now respond to fires outside their own Districts if they are best able to respond.

Valley Falls Fire District

The Valley Falls Fire Station operates two pumper trucks, one quint ladder/pump combination vehicle, one utility truck, a Chief's vehicle, and a rescue raft and trailer. The station is staffed by twelve full-time personnel; two more will be added in January 2004.

There are 17 volunteer call personnel.

Issues: In 1990 Chief John Burns did not believe consolidation of Cumberland's Fire Districts was necessary. Current Chief Ernest Cimino feels that consolidation is a "dead" issue at the moment but that it will one day be necessary, despite the advantages of operating several small Districts.

Chief Cimino states that the greatest obstacle facing the Valley Falls Fire District is that the tax base is not expanding fast enough to keep pace with cost increases. In the past decade population growth has lead to increased demand for fire services, to cope with this demand the District will be adding two new full-time personnel. In addition, Fire Districts are now required to pay for fire hydrants. While other Districts are in better financial situations at the moment, the Chief believes they will all eventually face the same situation; and alternate methods of fire protection financing will need to be examined.

The Chief feels that in recent months a great deal of important work has been done in the realm of code enforcement, as fire prevention is currently on the minds of many of the community's residents. However, this interest is already beginning to fade. Chief Cimino believes one of the main difficulties in ensuring compliance with fire codes is that there is no real tool available for code enforcement.

Rescue Services

The Town has two rescue companies. One is located in Ashton next to the Ashton Fire Station on Mendon Road, the other is located at the Valley Falls Fire Station. The rescue companies operate a total of four vehicles, two of which are fully telemetry capable for direct communications with area hospitals. One rescue vehicle is equipped with four-wheel drive for rough and off-road rescue as well as severe weather use. In addition, there is a dive rescue team. Rescue Services is staffed with 19 personnel, including both paramedics and emergency medical technicians (EMT's).

Issues: The Rescue Services currently has no plans for expansion. However, Chief Richard Susi of the Cumberland Hill Fire District is concerned that neither of the Town's two Rescue Services is located in the northern section of the Town, where the greatest increase in population has occurred. Additionally, one of the rescue vehicles is nearly twenty years

old and requires replacement. Equipment and radio upgrades are also necessary.

Police and Fire Dispatching

The state-wide 911 emergency system is fully operational in Cumberland. Five trained dispatchers operate the combined Police and Fire dispatching duties from the Cumberland Police Station on Diamond Hill Road.

Issues: In 1990, Mr. Raymond Vallee stated that over 60 streets in Town had duplicate or near duplicate names, and that numbering on many streets was haphazard. These two situations added up to the possibility of confusing emergency reports and the danger of response to the wrong location. A draft Ordinance to standardize street name and numbering throughout the Town in an effort to clear up ambiguity and to set minimum standards for the location, type and visibility of house numbering had been written at the time of the original plan. This Ordinance was recently enacted, and has ameliorated the problem.

Despite the increase in Cumberland's population, the number of dispatchers has been decreased from seven to five. According to Police Chief Silva, other Towns with similar populations have two dispatchers on duty at all times. Increasing dispatcher staffing would improve emergency response, however, the dispatch station is not currently equipped for two dispatchers. Fire Chief Richard Susi also noted inadequacy of Dispatch staffing.

2. Recreation

The Cumberland Recreation Department offers year round activities for residents of all ages. Activities include aerobics, arts and crafts, tennis, Town-wide day trips, children dance lessons, men's softball leagues, and various special events. A majority of the summer programs are sponsored for children. These include an 8-week day camp program, sports clinics, and tennis lessons. The Department also operates the Drop Zone Student Center. Recreation programs are also offered by the Boys Club, Girls Club, Christian Youth Organization (CYO), private clubs, schools and churches, and the Cumberland Youth Athletic Council. The Recreation Department is staffed with one full time Director, a part-time secretary and sixty part-time staffers, the majority whom are

employed during the summer months. In addition, there is a part-time Director and twelve other part-time staff who are employed at the Drop Zone Student Center.

Issues: In 1991, Cheryl DaCosta, Recreation Director and Marie Walsh, Chairman of the Parks and Recreation Commission, identified the lack of adequate full-time staff, indoor facilities (halls, gyms, and auditorium), and programs for teens, elderly and special needs population. In 2003, Recreation Director Craig Letourneau believed that, in general, current staffing levels are adequate, however, it might be beneficial to have a full-time, rather than part-time Director at the Drop Zone. In addition, recreational programs for teens and the elderly population have improved; the Drop Zone provides recreational opportunities for teenagers, while the Senior Center provides service to the elderly. The Director states that indoor facilities are still inadequate, as are programs for the special needs populations. The 1991 Plan also mentioned specific maintenance issues at several School Department properties; all of these have since been addressed.

The Recreation Department is currently working on several Open Space and Recreational Grants for the Town of Cumberland. In addition, several improvements to recreational opportunities in Cumberland are currently under consideration. These include:

- Trail improvements at the Monastery and other Town-owned land,
- utilization of the (closed) Cumberland Landfill for recreation,
- improvements to Currier Park,
- construction of a skate park in the Northern section of Town,
- development of winter sport opportunities at Diamond Hill Town Park, and
- improvements to Tucker Field, including improved spectator amenities.

These suggestions, as well as proposals for other recreation improvements are further discussed in Section VIII – Recreation and Open Space.

3. Library

The Edward J. Hayden Library opened in 1975 in a former Cistercian Monastery, major renovations and an addition were completed in 2000. The library houses approximately 110,000 volumes, this includes both circulation and reference collections. The library has

10 full-time staff members including the Director, an Assistant Director/Young Adult Librarian, Children's Librarian, Reference Librarian, Circulation Supervisor, two Librarians, and a custodian. The library also has 23 part-time staff positions. There are 35 desktop and six laptop computers available for public use. The library hosts a number of programs for all age groups, and provides meeting space for other groups. The Cumberland Library belongs to CLAN (Coordinating Libraries Automated Network), a statewide program that provides on-line computer access to the collections of 47 other libraries (4.1 million items).

Issues: The Library's "Long Range Plan 1989-1995", published in January 1989, identified several pressing issues regarding the library's size and management. The plan concluded that the Library facilities at the Monastery were inadequate. Due to the historic nature of the building, the addition of new wings to accommodate growth was considered undesirable. The long-range plan concluded that a new library, most likely on a new site, was the most desirable solution. A number of focus groups and public forums were held on the issue of Library relocation, and strong resistance was met from the community. Instead, extensive renovations and an addition were accomplished in order to provide adequate space for the Library's collection and programs.

In October of 2001, the Library conducted a community survey in order to assess satisfaction with the Library's new facilities and community needs. A very high level of satisfaction was expressed by survey respondents (93%). Survey respondents top priorities for the library were:

- More new materials,
- increased hours of service,
- additional programs (especially for children), and
- improved landscaping.

Results from this survey were incorporated into the Library's 2002-2006 Long-Range Plan. This Plan was published in January 2002, and identifies both physical/structural and programming plans for the Library's future. Major construction and rehabilitation needs include landscaping the front lawn, building a lighted walkway to the southern parking lot and fixing its broken lights, replacing worn-out carpeting as well as old windows in two large corridors, and expanding shelving for growing collections. Programming

needs include additional children's programs, especially for the pre-kindergarten age group as there is currently great demand for such activities. In addition, the Library's staff wishes to establish literacy programs for newborns and their parents as well as for adults, and as create a service oriented training model for employees. The Library staff also want to improve community outreach, including providing service to the homebound. Adequate staffing for these programs is essential for the library to meet the needs of the community.

4. Social Services

Senior Citizens

Cumberland has a large elderly population. While the proportion of this age group relative to the total population has remained stable over the past decade at slightly over 20 percent, the actual number of people over 60 in Cumberland has increased from 5,947 in 1990 to 6,473 in 2000. In addition, the past decade has seen a large percent increase in the 75-84 and 85+ age brackets, both these categories increased by over 50%percent since 1990, these groups now make up approximately 8 percent of Cumberland's population. This significant number of Seniors creates a need for activities, transportation, housing, and other services relating to this age group.

According to the 1991 Plan, Cumberland needed a Town-wide senior citizen center and a central base for senior services and programs; it recommended construction of a senior and multi-purpose center in Cumberland. The Cumberland Senior Center, in fact, opened in 1991. The Center provides a variety of services to Cumberland's elderly; these include a reduced-price lunch program; a Senior Van for excursions; pool room, meeting room, and Town gazebo; activities including art, exercise, education, and health; as well as both day and long-term trips. An Elder Information Specialist is available on a part-time basis, as well as a Senior Health Insurance Program (SHIP) coordinator.

There are 5 senior high rise apartments in Town: 1) Bear Hill; 2) One Mendon Road; 3) Chimney Hill; 4) Riverside Village; and 5) Flat Street. The total population in the apartments is over 500.

A variety of senior health and safety services are available in the elderly high rise buildings and Town-wide. The programs are described below:

- **Vial of Life** - A CVS program in which participants keep a plastic medicine bottle that contains a standard form with medical information (filled out by participant) such as doctor's name, address and phone; medical conditions; and prescriptions. The bottle is kept in the right top shelf of the refrigerator. A magnetized sticker is placed on the outside door of the refrigerator to alert assisting parties of the medical information contained inside.
- **R.U.O.K. Program (Are you O.K.?)** - Allows Seniors to provide information for an automated calling system that contacts the participant at a designated time; if the person does not respond a police officer is dispatched to their residence.
- **Elderly Affairs Program** - Initiated in 1992 by the Cumberland Police Department, this program consists of an Elderly Affairs Officer/Police Senior Advocate who develops programs for education and protection of Cumberland's seniors and serves as a liaison with social service organizations including the R.I. Department of Elderly Affairs.
- **Alzheimer's Alert Program** - Allows participants to register their name, address, and photograph with the Police Department so that they can be identified and returned home safely if they suffer memory loss. In 2003, this program is to be expanded to a nation-wide level.
- **Lines for Life** - In 2002, the Cumberland Police Department distributed cellular phones programmed to dial only 911 to interested Seniors.

Issues: Senior Center Director Lori Gagnon believes that the Senior Center is a vital resource for Cumberland's elderly population. The program has grown steadily since its initiation; there are currently 609 registered members. Many of these members serve as volunteers for the Center. Because of this growth, the most important issue facing the Center is lack of space in the building to provide activities that meet the needs of all members. The single multi-purpose room is used for the lunch program, exercise programs, arts and crafts, and bingo; this limits the number of activities that can be held. In addition, there is little room for storing supplies. The Director would like to increase the space available for Senior Center activities. Other goals documented in the Senior Center's five-year plan include procuring funding for a part-time social worker, coordinating with Meals on Wheels, instituting a formal evaluation plan of the program and activities via an

automated sign-in mechanism, and instituting a computer training program. Additionally, the handicapped-accessible van that helps transport seniors is old and needs to be replacing

5. Water Supply



The Cumberland Water Department provides water to approximately 21,000 people within Cumberland, the remainder of Cumberland's population receives its water from the Pawtucket Water Supply Board. The Cumberland Water Department services and maintains five storage tanks with a total storage capacity of 11 million gallons. The Department obtains water from four sources of supply, the largest being the Pawtucket Water Supply Board. On average, approximately two million gallons of water per day is distributed, with a peak daily consumption of 7 million gallons.

Sources

The public water supply for the Town of Cumberland is drawn from gravel packed wells, Sneece Pond Reservoir and the Pawtucket Reservoir; and is distributed via the Cumberland Water Department and the Pawtucket Water System. The Town of Cumberland provides water service to customers north of Marshall Avenue, while the City of Pawtucket owns and operates the water distribution

system south of Marshall Avenue. The Pawtucket Water supply source consists of a series of surface reservoirs located within the Town of Cumberland. The water supply and distribution system is illustrated in Figure VII-2; Table VII-1 lists sources, yield, and capacity of Cumberland's water supply.

Table VII-1 Sources of Supply

Description	Operating Status	Type	Yield (MGD)	Capacity (MGD)
Manville #1	Active	Gravel-packed	0.54	0.54
Manville #2	Active	Gravel-packed	0.63 MGD	0.63
Abbott Run #2	Active	Gravel-packed	0.22 MGD	0.22
Abbott Run #3	Active	Gravel-packed	0.46 MGD	0.46
Sneece Pond	Active	Filter Plant		0.50
Marshall Ave.	Active	Pawtucket Connection		7.00 *
TOTAL			9.36	10.37

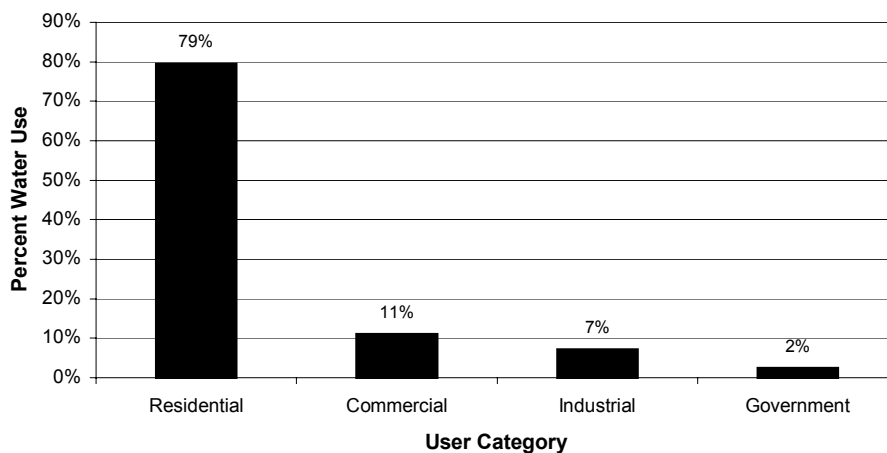
SOURCE: Hydraulic Gordon R. Archibald, Inc. July, 1989
*Increased from 1.00 MGD

Three of Cumberland's wells are inactive. Abbott Run #1 well was taken out of service when the Abbott Runs #2 and #3 wells were installed in 1985. The Lenox Street well was taken out of service in 1979 due to organic contamination. The Martin Street well was taken out of service in 1970 due to volatile organic chemicals and high iron and manganese levels.

Consumption

The Cumberland Water Department provides service to residential, commercial, industrial, and governmental users. Residential use consumes by far the most of the water supply (91 percent). Figure VII-3 shows water consumption by category in 1998; this distribution is similar to that of more recent years.

Figure VII-3 Water Use by User Category, 1998



Average Daily Demand: The adequacy of a water supply is determined by its ability to satisfy average daily demand, and is usually estimated by determining the average daily consumption of water per person per day and multiplying that number by the total population of residents to be serviced. Average daily consumption per resident is expressed in gallons per capita per day (GPCD). Over the past decade, Cumberland's average is GPCD has ranged from 81-93; this range approximates both the Rhode Island and National

averages. As previously mentioned, residential use accounts for the majority of water consumption; a more detailed analysis of residential water use can be seen in Table VII-2.

Table VII-2 Residential Water Use, 1994-1998

	1994	1995	1996	1997	1998	AVG
ANNUAL USE (MG)	519	570	479	555	502	525
DAILY USE (MG)	1.42	1.56	1.31	1.52	1.38	1.44
CONNECTIONS	6369	6455	6484	6541	6692	6508
GPCD	90	97	81	94	93	89

The original Comprehensive Plan forecasted water demand from 1990 to 2010 in order to determine the adequacy of the water supply. These predictions were based on the population forecasts conducted in Section II - Demographic Analysis of the 1991 Plan. As previously noted, population has increased at a higher rate than predicted. Therefore Figure VII-3, which compares water use in 2000 to 1991 estimates shows both the 2000 and 2010 estimates, as Cumberland's 2000 population approximated the 2010 estimate. Daily water consumption in 2000 exceeded both the 2000 and 2010 estimates by over 400,000 gallons.

Table VII-3 Comparison of Predicted to Actual Water Use

	2000 WATER USE	2000 ESTIMATE	2010 ESTIMATE
POULATION	31,840	28,800	31,740
POPULATION SERVICED	21,000	20,517	21,321
DAILY WATER USE (G)	2,880,000	1,538,775	1,599,070

The 1991 Plan also forecasted increases in industrial and commercial water use; these were predicted to increase at a rate of one percent per year based on historical water use records for land uses in those categories. Instead, water use in these categories has actually declined over the past decade. In 1998 combined industrial, commercial, and governmental average use was just 0.36 MGD, a decrease from 0.45 MGD in 1987 (2000 estimate was 0.51 MGD).

Maximum daily demand: This measure is used determine the adequacy of the peak

capability of pumping and transmission facilities. The maximum daily demand is the largest volume of water used over a single 24 hour period. It is determined from water use records and is expressed as a ratio of the average daily use. Generally, maximum daily demand ranges from 1.4 to 2.0 of the average daily demand, according to American Water Works Association. In the year 2003, maximum daily demand was 3.5 times average daily demand. This rate is much higher than that predicted in the 1991 Plan (4.88 MG in 2000, 5.04 MG in 2005).

Issues: In 1991 the Cumberland's average daily capacity of 3.36 MGD was not capable of meeting the maximum daily demand of 4.29 MGD. Capacity of the water supply has been increased to 9.36 MGD, greater than the maximum daily demand of 7.00 MGD, and is 3.5 times greater than average daily demand. However, this increase in capacity was accomplished by increasing reliance on water purchased from the Pawtucket Water Supply Board. As population increased, the associated demand for increased water may further stress the water supplies.

Results of hydrant flow tests conducted by Gordon Archibald, Inc. in 1988 and computer analyses indicated that fire flow deficiencies existed in some areas of the distribution system, particularly in the industrial areas. The 1991 plan recommended reinforcement of the distribution piping system to eliminate fire flow deficiencies and to help maintain pressures and provide more reliable service. This issue has been resolved for the most part; however, there are still some deficiencies in the Lippit Estate and Cumberland Hill areas.

The 1991 Plan stated that the water level in the Copper Mine tank lagged behind the low service tanks due to insufficient pipe capacity between the high and low service areas, this would be increased if the proposed connection to Woonsocket was implemented in the high service area, and that new sources of supply would be best located in the low service area where they are most needed. This connection has not yet been implemented, but is still under consideration; the Cumberland Water Supply Board has received grants that will be used for this plan.

In 1991, 20 percent of the total volume supplied for 1988 was non-account use. A leakage study and water audit to determine what steps were needed to reduce this percentage was recommended in the Comprehensive Plan. A leakage study was conducted in 1996, and

the problem has recently been remedied. Currently, less than 8 percent of water consumption is unaccounted for.

The distribution piping is generally well looped; however, there are some areas which consist of small diameter pipe, much of which is unlooped. A looped system is more reliable and is preferred over a dead-ended system, since looped pipe can supply water for consumption and fire protection from more than one direction and it also prevents water from stagnating as may occur in a dead-ended pipe where circulation is limited. This is especially important in Cumberland where high levels of iron and manganese exist in the groundwater sources. Stagnation of water allows these constituents to come out of solution. This precipitate will become resuspended when flushing hydrants, resulting in numerous consumer complaints. In the past decade progress has been made in improving looping of the water system.

In 1991, development above 285 feet elevation from the low service area and 400 feet above high service areas could not be serviced. The plan recommended installation of booster pumping facilities. Booster pumps have been installed, improving service to these areas; however there is still some difficulty in providing adequate service to Mendon Road near 295, this problem is currently being addressed by the Cumberland Water Supply Board.

Currently, Cumberland's water supply and storage is adequate for meeting the needs of consumers. Increasing the capacity of the Marshall Avenue-Pawtucket connection reduced supply problems; no Town water bans have been implemented since this upgrade. In addition, a 3.3 million gallon storage tank has been constructed in the high service area, increasing storage capacity to 11 million gallons. However, as part of the Town's growth management initiative, consideration should be given toward an improved method by which tie-ins are approved or denied. Just because there is excess water available, does not necessarily mean that public water supply commitments should be made to all future subdivisions.

Plans for improving Cumberland's water supply include:

- Rehabilitating all water tanks through lead abatement, sandblasting, and re-painting;
- ameliorating existing hydraulic difficulties between the high and low service area,

- continuing looping of the distribution system,
- conducting a meter change out and utilizing new radio-read guns for metering, and
- purchasing an additional parcel of land adjacent to the Sneeceh reservoir.

6. Sanitary Sewer

Inventory: The Town of Cumberland has a municipally owned and operated wastewater collection system that is connected to three Narragansett Bay Commission (NBC) interceptors. The Blackstone Valley Interceptor follows the Blackstone River from the Woonsocket City line, the Abbott Run Valley Interceptor serves eastern Cumberland as far north as Interstate 295, and the Highland Industrial Park Interceptor that runs from the industrial park along the Blackstone River each convey the wastewater to treatment facilities at Bucklin Point. The NBC jurisdiction encompasses all municipalities whose wastewater enters the Narragansett Bay.

Figure VII-2 illustrates the areas in Cumberland which are currently provided with sanitary sewer service. As this figure demonstrates, approximately 45 percent of Cumberland's total land area has sewer service; this is an increase from 1991 when only 20 percent of the Town was sewered. This represents service for approximately 14,200 residents (44.6 percent of total resident population) in 6,000 households (49.2 percent of households); in addition, there are 257 commercial and industrial users. The rest of the Town is serviced with Individual Sewage Disposal Systems (ISDS). Table VII-5 shows the 1995-1999 average daily disposal of wastewater by user classification.

Table VII-4 Wastewater Disposal

SOURCE	DOMESTIC (MGD)	COMMERCIAL (MGD)	INDUSTRIAL (MGD)	TOTAL (MGD)
PUBLIC DISPOSAL	1.083	0.311	0.096	1.490
SELF-DISPOSAL	0.700	N/A	0.232	0.932

A Town Ordinance requires ties-ins to the sewer system, however, this Ordinance ought to be reviewed from a Growth Management Policy perspective. If a property can be serviced with an ISDS, perhaps this should be encouraged rather than tie-ins and extensions to the sewer system, which may in turn result in the development of more land for residential purposes as well as the reduction of water available for recharge to aquifers.

In 1983 a Facilities Plan was prepared for the Town, the Plan was updated in 1993. This Plan examined the wastewater disposal needs for all areas in the Town. In this study, a priority ranking for areas to be sewerred was developed based on soil conditions, septic system failures, and land use densities. Table VII-5 lists these areas and their priority ranking from each of the two plans.

Table VII-5 Summary of Sewage Needs

NUMBER	AREA NAME	1983 Need	1993 Need
1	Valley Falls	High	High
2	" "	High	High
3	England Street	-----	High
4	Marshall, Alan, Pocasset Aves.	Moderate	High
5	Ashton-Berkeley	Mod/High	High
6	" "	Mod	Low
7	Angell Road	Moderate	Moderate
8	Monasterv Heights	Moderate	Moderate
9	Chapel Area	Low	Moderate
10	Orchard Drive	Low	Moderate
11	Lipitt Estates	Low	Low
12	Broadview	High	High
13	Industrial Park	N/A	Moderate
14	Diamond Hill Road (remaining)	Moderate	Moderate
15	" "	None	Low
16	" "	None	Moderate
17	" "	None	Low
18	Arnolds Mills	Low	Low
19	" "	Low	Low
20	" "	Low	Low
21	Diamond Hill	Low	Low
22	" "	Low	Low
23	Cumberland Hill (remaining)	High/Mod	High
24	Rolling Acres (remaining)	High/Mod	High
25	West Sneeck Brook	High	High
26	" "	High	Moderate
27	West Sneeck Brook	High	Moderate
28	Forest Dale	High	High
29	" "	High	High

SOURCE: 1993 Facility Plan Reaffirmation, Water Works Engineering and Associates, Inc.
1983 Facilities Plan, Anderson-Nichols & Co., Inc. and Gordon Archibald, Inc.

Issues: The Step I - Facilities Study for the Cumberland Sanitary Sewer program and its 1993 reaffirmation identified areas where sewer service should be provided. The issue of sanitary sewer extension demands considerable attention and deliberation by town officials and residents. Sanitary sewer service is important in Cumberland since most of its

land area is located in the watersheds or zone of contribution to municipal water supply sources. However, the extending sanitary sewer service to additional areas will allow for parcels to be developed which would otherwise not be allowed because of wastewater disposal problems, leading to increased population density. Therefore, the Town should be extremely cautious in planning sanitary sewer extensions. The emphasis should be on protecting public health and water quality by servicing those areas where septic systems are likely to have a negative impact.

As there are no immediate plans to expand Cumberland's sewer system, wastewater management alternatives such as septic system management and water conservation should also be examined. These alternatives are management strategies which individuals may use to remedy or minimize wastewater problems.

7. Public Schools

Inventory: The Town of Cumberland School Department currently operates five elementary schools, two middle schools and one high school. Table VII-6 identifies the schools, the year of original construction and any additions, site acreage, and the type of school. Elementary schools serve Pre-Kindergarten through fifth grade, middle schools serve sixth through eighth grades, and high schools serve grades nine through twelve.

Since the original Comprehensive Plan was adopted, the B.F. Norton Elementary School was constructed. Central and St. Patrick's are no longer used as Cumberland Middle Schools. The School at the Monastery is currently leased by the Northern Rhode Island Collaborative, and is used as a special education school for several towns.

Table VII-6 Cumberland School Buildings

SCHOOL	SITE ADDITIONS	ACRES	TYPE
ASHTON	1959, 1966	9.30	Elementary
B.F. NORTON	1993		Elementary
COMMUNITY	1928, 1954, 1961, 1963	4.38	Elementary
CUMBERLAND HILLS	1654, 1969	17.00	Elementary (2-5)
(annex) ST. JOANS	1930 - Leased	0.45	Elementary (K-1)
GARVIN MEMORIAL	1930, 1950 1965	7.79	Elementary
CUMBERLAND MIDDLE	1969, 2002	18.4	Middle
NO. CUMBERLAND MIDDLE	1971, 1993	34.74	Middle
HIGH SCHOOL	1961, 1964, 1969, 1971	26.50	High

SOURCE: School Facilities Need Assessment, KLQ, Inc.
Educational Facilities Study and Long-Range Facilities Plan, L.A. Torrado

School enrollment is a function of population growth and in-migration resulting from new residential construction. The 1991 Plan cited a study prepared by KLQ of Norwood, MA. (*School Facilities Need Assessment*, 1990) that predicted enrollment levels would increase between 1990 and 1999. The estimate for the 1999-2000 academic year placed total public enrollment at 5,229 or a 30 percent increase in the ten year period; actual enrollment was 5,135; slightly less than the estimate. The study's short-term forecast also slightly overestimated enrollment; 1995-1996 enrollment was 4,750, compared to an estimate of 4,796.

Table VII-7 Cumberland School Enrollment

	1990-1991 Capacity	2000-2002 Capacity	10-year Change	10-year % Change
1. Elementary Schools (90% utilization ratio)				
a. ASHTON	365	389	24	7%
b. B.F. NORTON	----	521	52-	----
c. CENTRAL GRAMMER	186	---	-186	----
d. COMMUNITY	352	668	236	55%
e. CUMBERLAND HILL	352	475	123	35%
f. GARVIN MEMORIAL	365	444	79	22%
g. ST. IOAN'S	187	194	7	4%
h. ST. PATRICK'S	221	----	-221	----
i. MONASTERY	----	189	189	----
TOTALS	2,108	2,491	772	18%
2. Middle Schools (85% utilization ratio)				
a. CUMBERLAND M.S.	593	633	40	7%
b. NO. CUMB. M.S.	528	822	94	56%
TOTALS	1,114	1,455	334	30%
3. High School (80% utilization)				
	1,672	1,707	35	2%

The 1990 KLQ study examined the existing school buildings to determine if they adequately house the educational programs. This study examined the adequacy of number of classrooms with respect to such functions as art, music, and physical education. It also examined the adequacy of the size of the classroom space based on RI State Department of Education standards. Its principle conclusions were that all kindergarten rooms were grossly undersized, most classrooms built since 1960 were at least 84% of the State space guidelines while the earlier classrooms were less than 76% of these same guidelines, most resource areas were makeshift arrangements of former storage rooms or had been cut from existing areas; offices, guidance, and especially health areas were inadequate; and Libraries, gyms and/or cafeterias fall far short of the state guidelines, except for the multi-purpose area at Cumberland Hill. The L.A. Torrado Architect report in 2000 identified many of the same issues, however, progress has been made in improving school facilities and will continue in the future.

Capacity of school buildings in 1990 and 2000 were obtained from the KLQ and L.A. Torrado reports. Based on classroom size requirements, the use of space in the 1989-90 and 2000-2001 school years the enrollment capacity of Cumberland's school's were calculated; this capacity can be seen in Table VII-8.

Issues: In the 1991 Comprehensive Plan Section II – Demographic Analysis discussed the population estimates prepared by CACI; these indicated there would be a slowing down of population growth from 1990-2010. The long-term population forecast prepared for the study predicated an increase of 2,900 persons between 1990 and 2010, indicating a need to increase capacity for approximately 400 students. The Plan recognized this demand could be higher or occur sooner if development was allowed to take place at a rate higher than is assumed. According to 2000 US Census Data, Cumberland's rate of population growth increased rather than decreased in the 1990's; with 2,802 additional people residing in Cumberland in this decade. This trend is expected to continue, and the school enrollment forecast prepared by L.A. Torrado Architects estimates an additional 370 students will be enrolled in Cumberland Public Schools by 2005.

As cited in Section II-Demographic Analysis, L.A. Torrado Architects' preliminary report on an Educational Facilities Study and Long-Range Facilities Plan for Cumberland Public

Schools in August, 2001 included short-term enrollment forecasts for public schools, predicting enrollment for each grade through the 2005-2006 school year. According to this report, elementary school enrollment is expected to increase by 20 students. The estimate of middle school enrollment is 1,275 students, an increase of approximately 100 students from 2000-2001; this increase is well within the middle school capacity. The highest increase in number of students is at the high school level, expected enrollment for 2005-2006 is 1,702; 253 more students than were enrolled in the 2000-2001 school year. This estimate is only slightly below Cumberland High School's capacity, and indicates that increasing capacity at the high school level will likely be necessary in the near future.

The 1991 Plan recommended that the physical plant of Cumberland's schools should be improved to accommodate short-term growth in school enrollment as the outmoded conditions of many of Cumberland's schools documented by the KLQ study were less than an ideal setting for learning. Changes have been made to address these deficiencies, including construction of a new elementary school as well as new additions to both middle schools.

One of the most exciting projects in Town is the Cumberland High School 2010 planned improvements, which feature, among other things, an innovative wellness Center that will serve not only as a resource for the students, but for the entire community. Cumberland is positioning its schools to become "schools of choice" once the federal voucher system is put in place.

8. Solid Waste

The Town provides solid waste and recycling pick-up services through private contractors who pick up and haul solid waste and recyclables to the Central Landfill in Johnston. With some exceptions, service is only available to residential dwellings with four or fewer units per building, larger buildings utilize private dumpsters.

Issues: The State Solid Waste Management Corporation has placed a cap on the amount of solid waste the Town may dispose of at a subsidized rate. This cap is adjusted periodically, and is currently 14,900 tons, an increase from the 1991 cap of 13,215 tons. In 1991 this equaled 0.455 tons per person per year in 1991, and in fiscal year 89-90 Cumberland exceeded its cap by approximately 1,000 tons. The Town was therefore

charged a higher rate on the tonnage over their allocation. The original Plan recommended that the Town should take aggressive actions in order to reduce solid waste generation since disposal of solid waste was becoming increasingly difficult and expensive. Currently the average amount of waste permitted per person is only slightly higher than in 1991, 0.47 tons. However, exceeding the permitted amount of waste is no longer an issue due to implementation of a recycling program, as recycled waste is not included in calculation of the Town's annual permitted waste disposal.

C. FINDINGS

Town Hall has just about maximized its for employees and the records it must keep. Additionally, the Hall is located at the most southern tip of Town. Consideration ought to be given to moving Town Hall to a more central location, perhaps near Chapel Four Corners. In addition, a Geographic Information System should be developed, and improved record keeping software should be installed in the Town Clerk's Office.

Public Safety - Cumberland residents are very satisfied with public safety. The Police Department has recently become CALEA certified. However, additional staffing will likely be necessary to adequately provide service to Cumberland's population, the current staff is 56, compared to an average of 83 police staff in other towns with similar populations. Unlike in 1990, each Fire Chief views consolidation of the Fire Districts favorably, this issue will need to be addressed in the coming years. Like the Police force, police and fire dispatch staffing have not kept pace with population growth, additional dispatchers will be necessary to handle increased volume of calls.

Recreation - Cumberland's Recreation program has expanded over the past decade, new facilities have been obtained and older facilities have been improved, in addition, new programs such as the Student Center have been developed. General upkeep and maintenance is needed at most recreation areas and a specific maintenance program/schedule should be developed.

Library - The recent addition to the Library provided adequate space for collections and programs for the future. However, demand for programs is currently higher than can be met.

Social Services - Since the original Plan was written, the Cumberland Senior Center was opened. The Center has been highly successful, however, space is inadequate for providing enough programs to meet the needs of its members.

Water Supply - Long-term water supplies are still adequate to meet both average and maximum daily demand. Although industrial and commercial use has declined, this decrease in demand is overshadowed by a high rise in residential demand. To meet this demand, the Cumberland Water System has to rely on Pawtucket's drinking water

resources. This demand will increase as Cumberland's population grows, providing a strong basis for implementing a growth management plan. In addition, the average daily use of water has increased since 1991, therefore water conservation needs to be encouraged.

Sanitary Sewer - Extension of sanitary sewer service is needed in areas of high-density development and poor soil conditions. These areas should be given priority for sanitary sewer extensions. However, sewers should not be extended to undeveloped sections of the Town or areas where soils are suitable for ISDSs; as such extensions will lead to increased residential development. For those areas serviced by individual on-site systems, maintenance and rehabilitation of these systems is be essential to protect public health and water resources.

Public Schools - Enrollment over the past decade has been higher than predicted by the 1991 Plan. Currently, school capacity is sufficient. However, as Cumberland's population continues to growth capacity will need to be increased, especially at the high school level.

Solid Waste -The Town's recycling program has reduced the amount of solid waste transported to the Central Landfill, Cumberland has not exceeded its waste cap over the past several years. Currently, approximately 18 percent of residential solid waste is recycled, an increase in this number should be encouraged.

D. GOALS, POLICIES, AND RECOMMENDATIONS

Goals and policies for services and facilities have been formulated based upon the inventory and analysis of the previous sections.


State Planning Act Goal

- To promote orderly growth and development that recognizes the natural characteristics of the land, its suitability for use and the availability of existing and proposed public and/or private services and facilities.

Cumberland Public Services and Facilities Goals

Goal FS.1 PUBLIC SAFETY: Maintain the high level of public safety in the Town as well as the existing high level of public satisfaction with these services.

Policy FS.1.1 Maintain and improve the high level of fire protection in the Community.

Action FS.1.1.1  Visit the issue of fire department consolidation, central phasing of service, and Town oversight.

Action FS.1.1.2 Continue providing Fire Chiefs with the opportunity to comment on the fire prevention issues related to new developments within the Town.

Policy FS.1.2 Maintain the proper level of personnel and equipment in pace with the Town's growth.

Goal FS.2 RECREATION: Maintain, identify, and improve the quality and accessibility of recreational programs and facilities for the Town.

Policy FS.2.1 Develop a recreational Capital Improvement Program for identifying and scheduling future recreational projects.

Policy FS.2.2 Continue to maintain and improve the Town's existing recreational programs and facilities, including passive recreation facilities.

Policy FS.2.3 Maintain a dedicated and experienced recreation staff.

Goal FS.3 MUNICIPAL SERVICES: Maintain the high level of municipal services as well as the high level of public satisfaction with these services.

Policy FS.3.1 Develop new municipal facilities consistent with the Town's need and financial ability.

Action FS.3.1.1 Develop a systematic program of public building improvements and capital equipment acquisition in order to upgrade and improve existing facilities and to accommodate needs necessitated by any anticipated development and possibly including compensatory development impact fees for capital improvement (CPB 1998 resolution).

Policy FS.3.2 Develop additional municipal building facilities which are sensitive to the historical value of the existing Town Hall.

Policy FS.3.3 The Town should study its computer needs and continue to develop its information technology enhancement; including the installation of a Geographic Information System.

Policy FS.3.4 Relate municipal personnel needs of the Community to population growth.

Action FS.3.4.1 Perform a Departmental Baseline Evaluation and regular staff reviews to determine whether goals are being met and how Departments can improve.

Policy FS.3.5 Improve the Town's visual and aesthetic quality.

Action FS.3.5.1 Initiate a proactive effort with State and private organizations on litter reduction.

Action FS.3.5.2 Enforce existing Zoning Regulations on litter and clutter.

Goal FS.4 LIBRARY: Maintain and improve Cumberland's library services, in recognition of them as valuable cultural resources of the community.

Policy FS.4.1 The Town should strive to continue the high quality of service and to meet the current and projected library needs.

Goal FS.5 SOCIAL SERVICES: Maintain the quality and delivery of social services; help facilitate, as appropriate, those services which are privately provided.


Policy FS.5.1 Continue support of the Senior Center and its programs.


Policy FS.5.2 Continue to provide public support for privately operated human services  as well as encourage private service.

Goal FS.6 WATER SUPPLY: Provide a safe, high quality and sufficient drinking water supply to the Town.


Policy FS.6.1 Protect the surface water bodies and aquifers that contribute to the Town's water supply.

Action CS6.1.1 Adopt a Watershed Protection Ordinance.

Policy FS.6.2 Continue water supply partnerships with the  es of Pawtucket and Woonsocket.

 **ion FS.6.2.1** Have a Cumberland board member serve on Pawtucket's Water Board.

Policy FS.6.3 Expand and manage the water system as necessary to support existing and planned development.

Action FS.6.3.1  Conduct an assessment of Cumberland's water system needs.

Action FS.6.3.2 Develop a water supply management plan including a land use classification and development of mitigation measures.

Policy FS.6.4 Encourage water demand modification programs; consider the effects of mandatory tie-ins on the Town's Growth Management Initiative.

Action FS.6.4.1 Continue encouraging water conservation.

Goal FS.7 SANITARY SEWER: Provide for effective wastewater management which is sensitive to environmental concerns and growth management.

Policy FS.7.1 Provide sanitary sewer service to areas with wastewater disposal problems due to poor soils and high density development.

Action FS.7.1.1 Develop a systematic program of sanitary sewer expansion to service those areas where wastewater disposal needs cannot be met by individual on-site systems.

Policy FS.7.2 Coordinate the expansion of sanitary sewer service with existing and planned growth and desired density levels.

Policy FS.7.3 Recognize wastewater management alternatives to sewers, including individual sewage disposal systems (ISDS) in low-density residential areas.

Action FS.7.3.1 Examine the feasibility of adopting a Waste Water

Management District within the Cumberland and Pawtucket Watershed Reservoirs to monitor and regulate septic system maintenance within watershed areas.

Policy FS.7.4 Assist owners of individual on-site disposal systems in maintaining and reconstructing these systems.

Goal FS.8 PUBLIC SCHOOLS: Maintain the high quality of public education and high level of public satisfaction with education in the community

Policy FS.8.1 Provide a quality educational environment for all students.

Policy FS.8.2 Continually assess school building requirements as the community grows.

Action FS.8.2.1 Develop a program of public school improvements and renovations to accommodate the anticipated increase in capacity required by increased development.

Action FS.8.2.2 Evaluate and consider innovative methods of financing such as compensatory development impact fees for capital development (CPB 1998 resolution).

Action FS.8.2.3  Create a Bond Oversight Committee

Action FS.8.2.4 Mandate faster physical building improvements.

Policy FS.8.3 Incorporate Town recreational facilities into new school construction programs.

Policy FS.8.4 Continue to reflect the changing educational needs of the community and student population in educational programs.

Goal FS.9 SOLID WASTE: Ensure the proper disposal of solid waste and continuing high level of participation in recycling.

Policy FS.9.1 Continue to encourage solid waste reduction through source reduction, reuse and recycling.

Action FS.9.1.1 Establish a strong education program for recycling.

Action FS.9.1.2 Provide ample facilities to make recycling relatively easy for all citizens.

 **Policy FS.9.2** Improve town-wide solid waste collection.

Action FS.9.2.1 Regularly schedule collection of large items to avoid unsightly curb deposits.

Action FS.9.2.2 Provide a community grass and clipping collection area.

VIII. RECREATION AND OPEN SPACE


A. INTRODUCTION

Cumberland is a community that greatly values its recreational and open space resources. The Town has devoted a significant amount of resources and energy to protect and manage these areas, and acknowledges that much more must still be done. Cumberland's remaining farms and fields are as integral to its character as are its historic mill villages. The diverse landscape, i.e., densely populated neighborhoods as well as wide expanses of forests and fields, makes it difficult to articulate a single goal. Often, the need for soccer fields competes with funds available for wildlife habitat protection. Sometimes, the situation becomes complicated when a single parcel of land can lend itself to both uses. In these instances, it becomes vital that an organizational framework exists in order to provide structure to the conversations that must take place. This element is the initial attempt to document Cumberland's resources and needs, and offers guidance as to how communications between different stakeholders can be improved to promote thoughtful decision-making.

State Planning Act Requirements

According to the R.I. Comprehensive Planning and Land Use Regulation Act, the Open Space and Recreational Element shall "include an inventory of recreational resources, open space areas and recorded access to such resources and areas. The element shall also contain an analysis of forecasted needs and policies for the management and protection of such resources and areas. The policies and implementation techniques must be identified for inclusion in the implementation program element."

The Act also requires Consistency with State Guide Plan elements;

110	Goals and Policies
121	State Land Use Policies and Plan
152	SCORP
155	Greenspace & Greenways
	Forest Resources Management Plan

Recreation

The Recreation section inventories recreation facilities located in Cumberland, describes changes since the 1991 Plan, and assesses future recreational needs. Recreational facilities fall into two general categories: places for active play, and areas for the passive enjoyment of nature. These two categories are not mutually exclusive: some facilities may provide opportunities for both types of recreation. The following describes each type of recreation, as well as the types of facilities where such recreation generally occurs.

Active Recreation - Generally considered to be recreation that requires specific facilities or is of a structured nature. Several types of recreational facilities primarily serve as places for active recreation, these include:

- **Playlots** – Neighborhood play areas intended for children of pre-school age. They are essentially a substitute for home backyard areas and are normally provided in areas with high population density.
- **Playgrounds** – Neighborhood play areas for the recreational needs of the 5 to 12 year age group. They may include apparatus areas, field areas for games and informal play activities; passive areas; and areas for court games.
- **Playfields** – Areas which usually serve more than one neighborhood and provide varied forms of activities for young people and adults. They include facilities for a wide variety of recreational opportunities.
- **Special Areas** – Areas developed for a special use such as a municipal beach, golf course, etc.

Passive Recreation - Unlike active recreation, passive recreation requires a minimum of facilities or equipment; it generally occurs in a natural setting and does not consume resources. Such activities as walking, hiking, and bird-watching are considered passive recreation. Recreational facilities for passive enjoyment of the outdoors include:

- **Neighborhood Park** – Areas primarily for sitting and quiet relaxation; may be in conjunction with a playground or playfield.

- **Major Parks or Reservations** – Large parks which provide for a variety of recreational opportunities, with large areas left in their natural state.
- **Linear Park** – Areas used for recreational travel, usually build on natural corridors such as utility easements, rights of way, or river valleys, and function to link other recreational facilities.

Open Space/Conservation

Open Space and Conservation areas provide a variety of benefits to Cumberland's residents. While they may provide opportunities for passive recreational use, this is not their primary function; in fact, some are unsuitable for direct human use. Rather, they provide indirect benefits such as protection of both surface and groundwater resources, wildlife habitat, and aesthetic value. According to the State Guide Plan Element *A Greener Path*, undeveloped conservation or "Greenspace Areas" are "essential to life in Rhode Island today and in the future...These are areas necessary to protect the unique natural resources of the community". The Open Space Section inventories both public and private open space in Cumberland, details parcels of land that have been protected since the original Comprehensive Plan, and sets forth Cumberland's Open Space acquisition priorities for the future.

Planning Districts

To analyze the availability of existing open space and recreational facilities, the Town has been divided into Planning Districts. Planning Districts are used throughout the Comprehensive Plan as a common element that bonds planning effects to distinctive areas of the Town. The districts correspond to the delineation of census tracts established for the Town by the U.S. Bureau of the Census. The six Planning Districts in Cumberland are described below.

- **District 1: Valley Falls, Lonsdale** - Located in the southern section of Cumberland and bordered by the City of Central Falls, this district is noted historically for its early development as a series of mill villages around which single and multi-family residential development took place. At 7.3 people per acre, this district is the most densely settled within the Town.

- **District 2: Ashton, Berkeley** - Originally mill villages that developed alongside the Blackstone River, this district is characterized by mixed land use with medium to high-density residential development.
- **District 3: Monastery** - Characterized by suburban growth which occurred during the 1960's, including new subdivisions developed along Mendon and Diamond Hill Roads.
- **District 4: Arnold Mills, Lippert Estates** - This area is characterized by single-family residential development, the historic village of Arnold Mills, and large reservoirs. This area has experienced a great deal of growth over the past decade.
- **District 5: Grants Mills, Diamond Hill, Ballou** - This district consists of the largest land area of the six planning districts. It is characterized by low-density rural development.
- **District 6: Cumberland Hill** - A predominantly residential area with single-family homes and some recent condominium development. This district has the second highest population density in Cumberland.

B. INVENTORY

This section inventories facilities utilized for active and passive recreation as well as open space and conservation in the Town of Cumberland. The recreation section summarizes Town owned recreational facilities in each of Cumberland's six Planning Districts, as well as privately owned facilities. The Open Space section details space preserved primarily for non-recreational purposes that is available for public use, and summarizes other conservation areas. Both the Recreation and Open Space sections include a summary of changes that have taken place since the Comprehensive Plan was originally written in 1991.

1. Recreation

The Town owns approximately 670 acres of land primarily utilized for recreation. This includes five playgrounds and 12 playfields which are primarily for active recreation, as well as two major parks (The Monastery and Diamond Hill Town Park) which are used for both active and passive recreation. In addition, there are approximately 112 acres of privately owned recreational facilities in the town. Table VIII-1 summarizes the public recreational facilities located in each Planning District, their locations can be seen in Figure VIII-1. Appendix VII-1 lists the name, size, uses, service area, and ownership of all recreational facilities in the Town of Cumberland.

Table VIII-1 Recreational Facilities by Planning District

PLANNING DISTRICT	ACRES	FACILITIES
1. Valley Falls/Lonsdale	5.6	Three playfields and one playground.
2. Ashton/Berkley	436.6	The Monastery (major park) and two playfields.
3. Monastery Heights	0	None
4. Arnolds Mills/Lippert Estates	101	Tucker Memorial Field, two school playgrounds.
5. Grants Mills/Diamond Hill/Ballou	78	Diamond Hill Town Park (major park), one school playground.
6. Cumberland Hill	30	Two school playfields.


Changes Since 1991

Since the Comprehensive Plan was originally written, four new playfields have been acquired by the Town: the Razee, Bentley/Razee, High Street, and Farm Drive Fields. The Town has also acquired the 75-acre Diamond Hill Park from the State of Rhode Island. The Drop Zone Community Center is currently being leased for use as a student center. Major renovations and upgrades have been undertaken at:

- **Currier Play Area** - skatepark.
- **Tucker Memorial Field** - Tennis Courts, lighting.
- **Valley Falls Heritage Park** - Passive recreation, signage, picnic area.

Future Recreational Needs

Future recreational needs of the Town of Cumberland were determined based on the recreational inventory, original Comprehensive Plan, and input from the Recreation Department and Board. Specific Plans for improvements to recreational facilities as well as opportunities for additional active and passive recreation are identified below.

Drop Zone Community Center - This 2.40 acre parcel is located adjacent to the Town's Central Artery Greenway, and is across the street from Cumberland High School. It is currently leased by the Town and used as a youth center. This property would be an invaluable addition to the Town's open space properties, as it will serve as "gateway facility" to the Town's expanding greenway system. Upon acquisition, the property would be used as classrooms and meeting space for a variety of environmental, cultural, and educational organizations. The Town has applied for a RIDEM Greenways Grant for partial funding of this acquisition. 

Active Recreation - As Cumberland's population increases, so does the need for active recreational opportunities. Currently, there is an insufficient amount of mini-parks and playgrounds in Cumberland compared with National Parks and Recreation Association Standards. These facilities are especially important in the more densely developed parts of Town such as Valley Falls and Lonsdale/Berkeley.

While there is no single Community Park in Cumberland, the functions of a Community Park are provided by the Monastery, Tucker Memorial Field, and Diamond Hill Town

Park; improvements to recreational opportunities at these locations should continue in order to benefit the entire community. Additionally, the Town is eager to continue working with the State and the Blackstone River National Heritage Corridor to build the regional bikepath along the Blackstone River, beginning alongside the Pratt Dam. The River and its banks are a valuable resource that the Town should utilize for recreational purposes while at the same time protecting them as valuable natural resources.

Passive Recreation - Some of the Town's existing active recreation facilities would serve a broader percentage of the citizenry if passive recreation facilities were incorporated in the overall program. Opportunities for improvements to passive recreation exist at a variety of locations. Tucker Field, in particular, represents an area where passive recreation such as walking trails and better spectator amenities would be well suited.

Other Plans - Recreation Director Craig Letourneau has identified several specific plans for improving Recreational opportunities in Cumberland. Improvements to trails at the Monastary and other Town-owned land will provide important opportunities for passive recreation. The (closed) Cumberland Landfill and an unnamed island on the Blackstone River are areas that could potentially be developed for recreational use. New active recreational opportunities can be provided by continued improvements at Currier Park and by construction of an additional skatepark in the northern section of town, as well as by developing opportunities for winter sports at Diamond Hill Town Park.

2. Open Space

Existing Open Space

Currently, there are 62 parcels of land (comprising a land area of 4,488 acres) dedicated to open space and conservation purposes in the Town of Cumberland. Of that amount, 1,292 acres are Town-owned, 1,084 acres are owned by The Pawtucket Water Supply Board; and 284 are owned by the State of Rhode Island. The remaining acreage is owned by private environmental groups such as the Cumberland Land Trust, homeowners associations, and individuals.

Public Open Space - All open space owned by the Town of Cumberland and the State of Rhode Island is generally available to the public for passive recreational uses. In addition, three nature preserves held by the private Cumberland Land Trust, Inc. are accessible to the public. Table VIII-2 lists Open Space areas available for public use; the location of each of these properties is illustrated in Figure VIII-1.

Management Plans should be prepared for each parcel such that the uses allowed and prohibited are unambiguous. These plans should delineate specific future uses and provide specific definitions of active versus passive recreation. Conservation easements or preservation rights should be articulated in the plans and be visible on the ground.

Table VII- 2 Public Open Space

TOWN OF CUMBERLAND

NAME	SIZE (ACRES)	USE/CHARACTERISTICS
Lambert Property	27.5	
Franklin Farms	65.4	Farmland
Sneech Pond Reservoir	156.0	Water Supply. Surrounds Pond and extends eastward.
Lawrence Property/Tower Hill	50.0	Open Space Associated with a subdivision. Near Miscoe Lake in the north of Town.
Gainsborough Farm	84.0	In northwest of Town, between W. Wrentham Road and Lincoln town line.
Scott Pond Conservation Area	98.5	Wetlands, wildlife, rare plants; Passive recreation. West of Scott Road.
Fanning Wilderness	40.3	Riverbank, floodplain, marsh. Part of BRVNH.
Schofield Farm	68.0	Farmland. On the north side of Nate Whipple Highway.
Oblate Fathers/Manville Hill	25.4	
Valley Marshes	55.0	Large wetland complex. In southwest of Town on Lincoln town line.
Long Brook	90.8	Wetland, open space associated with a subdivision. West of Diamond Hill Road, north of I-295.
Lippet Estates	32.0	Open space associated with a subdivision. East of Scott Road, south of Little Pond.
Blackall Property	65.0	Between W. Wrentham Road and Highland Corporate Park.

CUMBERLAND LAND TRUST, INC.

NAME	SIZE (ACRES)	USE/CHARACTERISTICS
High Rock Farm Preserve	69.1	Rare plant species, some trail access, Bluebird Trail. Surrounds Baskin Farm on Scott Road.
Otis Smith Farm Preserve	53	Passive Recreation. On both sides of Scott Rd east to Little Pond.
Veronica A. Geddes Bowen Wildlife Preserve	34	Wildlife habitat, passive recreation. On Angell Road between the Wilcroft and Red Gate Road neighborhoods.

STATE OF RHODE ISLAND

NAME	SIZE (ACRES)	USE/CHARACTERISTICS
Home Ave. Conservation Area	1.5	Conservation
Diamond Hill Reservation	262	Conservation. Between Pine Swamp and Tower Hill Roads.
Blackstone River/Valley Marshes	22.00	Wetlands, fish and wildlife. In southwest of Town on Lincoln town line.

Privately Held Open Space – In addition to the Open Space and conservation land identified above, 2,369 acres of privately owned land in Cumberland is protected from development. The Audubon Society owns two parcels of land comprising 30.9 acres, The City of Pawtucket owns over 1500 acres of land for the purpose of water quality protection, and The Cumberland Land Trust, owns 10 parcels in addition to its three public properties. Since the Cluster Open Space ordinance was adopted, 298 acres of land have been protected as part of subdivision development. Other protected land includes areas on which voluntary Conservation Easements have been placed, as well as other privately protected lands. Table VIII-3 shows private protected open space in Cumberland.

Table VII-3 Private Open Space

<u>OWNER</u>	<u>ACRES</u>
Audubon Society	30.9
City of Pawtucket	1528.0
Cumberland Land Trust	230
Private	
Conservation Easement	151.3
Cluster Open Space	297.8
<u>Other</u>	<u>74.2</u>
Total	2,368.6

Open Space Acquired since 1991

Since the 1991 Comprehensive Plan, open space in Cumberland has increased by 23 percent (from 3,625 acres to 4,448 acres). The 1991 Plan recommended the acquisition of 2,764 acres of land. Of this recommended open space, 823.5 acres were acquired for permanent protection; other properties were developed as Cluster Subdivisions Open Space set asides. Some remaining acreage is still available for are still viable options for open space acquisition. Table VIII-4 shows the status of open space properties recommended by the Town's 1991 Plan.


Table VIII-4 Status of 1991 Recommended Acquisitions

ID	NAME	ACRES	1991 STATUS	2003 STATUS
	Blackstone River Valley	280	Acquisition	3.5 Acres acquired (Town)
	Elderly Housing Passive Recreation Area	----	Acquisition	No longer under consideration
	Diamond Hill Town Park	75	Acquire from State	75 acres acquired (Town)
	The Monastery	N/A	Develop Resource Management Plan	Not yet developed.
	Geddes Farm	32	Acquire Dev't Rights	17.4 acre Cluster Open Space
	Angell Farm		Acquire Dev't Rights	Remains a high priority
	Hines Farm	130	Acquire Dev't Rights	28.6 acres Cluster Open Space
	Long Brook	150	To be acquired	90.8 acres acquired (Town)
	Abbott Run	100	To be acquired	Not yet acquired
	Lippitt Estates	32	To be acquired	32 acres acquired (Town)
	Scott Pond (was Scott Brook & Mill Pond)	160	To be acquired	98.5 acres acquired (Town)
	Diamond Hill Vineyards	33	Acquire Dev't Rights	Remains a high priority
	Phantom Farm	15	Acquire Dev't Rights	Remains a high priority
	Franklin Farm	65.4	Acquire Dev't Rights	65.4 acres acquired (Town)
	West Wrentham Road	300	Conservation easements	92 acraa acquired (Town - Highland/Blackall)
	Nate Whipple Wetland (was East Sneeck Brook)	335	To be acquired	40 acres acquired (Land Trust)
	Rosetti Land	182	To be preserved	Preserved
	Diamond Hill Park Expansion	400	To be acquired	262 acres acquired (State)
	Miscoe Lake	550	To be preserved	51 acre Cluster Open Space 2 acres acquired (Town)

Open Space Priorities

Cumberland possesses valuable natural areas which provide an opportunity for open space preservation and acquisition. Areas which have the potential to serve as open space include agricultural lands, wetlands, river and stream corridors, and areas of groundwater recharge. Focus areas for protection in Cumberland identified by the State are those containing lime-based 'greenstone' supporting rare species. These areas should be acquired for the protection of biodiversity in the state. Designated Rare Species Habitats

have been identified in Cumberland by the Natural Heritage Program, these areas are detailed in Element V – Natural Resources of this Plan.

While no specific method for determining priorities for open space acquisition has been developed as of yet, current priorities include expansion of The Cumberland Greenway, creation of a pedestrian trail system, and acquisition of the Drop Zone Community Center as well as land adjacent to existing protected properties. 

The Cumberland Greenway - Named by the Cumberland Land Trust, The Cumberland Greenway is a vision plan to create one contiguous area of open space from the Monastery to Diamond Hill State Park. The Central Artery of the Cumberland Greenway presently consists of Tucker Field, the Scott Brook Conservation Area, the Baskin Property, the Brown and Rowbottom Properties, Lippitt Estates, and the Long Brook Conservation Area. Expanding this area through acquisition of nearby properties is a top priority for the Town.

Cumberland Greenway Pedestrian Trail System - Several hiking/pedestrian trails currently exist in Cumberland. However, their use is greatly limited by their lack of interconnection. Extending this system and creating linkages between open space parcels and important destinations is a priority for the Town. In addition to mapping the existing formal and informal trails (and primary and secondary corridors) on these and other open space properties, the Town needs to have the equipment and labor to properly maintain these trails, consistent design standards and a financing program for maintenance and extensions.

Specific opportunities for creating such a trail system exist at:

- Diamond Hill State Park Extension
- NCMS/Ash Swamp/Tower Hill Estates/Caetano Open Space/Staples Rd. area
- Lippitt Estates Conservation Area
- Scott Pond Conservation Area
- Longbrook Conservation Area
- Blackall Conservation Area

The Warner Trail – This 34-mile long trail, created prior to WWII, extends from Canton, MA to Diamond Hill State Park and connects public parcels including Town forests and private property. It enters Cumberland from Wrentham in the northeast corner of the State. Acquisition of parcels along the trail through fee simple and conservation easements and to extend the trail to the Blackstone Heritage Corridor as recommended in the *Trails and Greenways, A Vision for the Blackstone River Valley* (2003) is a priority.

Property Contiguous to Existing Open Space - Preserving open space adjacent to existing open space allows for the creation of large, contiguous tracts of land that are more valuable for protecting wildlife habitat than having smaller, non-contiguous tracts. In addition, expanding existing open space areas is an important step for creating a North and South Artery of The Cumberland Greenway. Parcels such as Angell Farm, Phantom Farm, and the Emerson Property are of great importance for preservation as farmland and open space. Protecting our public drinking water supplies for the future through acquisition of lands adjacent to Town and Pawtucket Water Supply lands including reservoir tributaries is also a top priority.

C. FINDINGS

1. Recreation

Mini-Parks/Playgrounds – These active recreational facilities are geared toward serving small local areas. Cumberland has only five playgrounds and no mini-parks. This is generally not problematic in areas of large-lot single-family residential development, however, these facilities should be provided in areas of denser, multi-family development such as Valley Falls, Lonsdale, and Berkeley.

Major Park – Community Parks and Reservations in Cumberland include the Town-owned Diamond Hill Park, Tucker Memorial Field, and the Monastery, as well as the State-owned Diamond Hill Reserve. While individually these areas do not serve all the functions generally considered necessary for a major park, together they do meet the community's needs. The Town-owned properties should be focus areas for improvements, so that they can better benefit Cumberland's population.

As noted in the Demographic Element, Cumberland's population is aging. Recreational programs and facilities should be planned for this changing population. This should include incorporation of passive recreation opportunities at Tucker Field; as well as recognition of the Town's growing elderly citizenry in the Town's ongoing phased implementation of a renovation to Diamond Hill Town Park. The outdoor theatre in Diamond Hill Town Park is a great resource in the summer, but is in need of renovations.

Linear Park - The Blackstone Valley River National Heritage Corridor offers a unique open space, recreational, historic/architectural preservation and tourism opportunity to the Town of Cumberland, as well as the other 19 communities which make up the Corridor.

2. Open Space

Cumberland possesses valuable natural areas that provide a unique opportunity for open space preservation and acquisition. The 1991 community survey demonstrated the desire of the majority of respondents to maintain Cumberland's suburban/rural character. The community survey also revealed the willingness of the respondents to preserve Cumberland's material resources by purchasing land and using it for open space. The recent 1.5 million dollar voter-approved bond of open space acquisition serves as evidence of Cumberland's continued commitment to preserving and protecting open space.

According to the RI Department of Administration's Statewide Planning Program almost 34 percent of Cumberland was developed as of 1995, this percentage has increased, generally as residential subdivisions, since the last Land Use survey. Currently, approximately 26 percent of Cumberland's land area is under some kind of protection from development. This leaves approximately 40 percent of Cumberland with the potential of being developed, but also represents future opportunities for acquisition of open space. A priority system for acquisition of open space in the future will be invaluable for ensuring that limited resources are used in the most efficient and beneficial manner.

D. GOALS, POLICIES, AND RECOMMENDATIONS

Based on the inventory and analysis of the previous sections, goals and policies for open space and recreation have been formulated. The State has formulated open space and recreation goals which local plans should consider. The following are State goals for this Element:

Rhode Island State Planning Act Goals

- To promote orderly growth and development that recognizes the natural characteristics of the land, its suitability for use and the availability of existing and proposed public and/or private services and facilities.
- To promote the protection of the natural, historic and cultural resources of each municipality and the state.
- To promote the preservation of the open space and recreational resources of each municipality and the state.
- To encourage the use of innovative development regulations and techniques that promote the development of land suitable for development while protecting our natural, cultural, historical and recreational resources and achieving a balanced pattern of land uses.

Cumberland Recreation and Open Space Goals

Goal OS.1 MAINTAIN AND IMPROVE THE QUALITY AND ACCESSIBILITY OF RECREATIONAL PROGRAMS AND FACILITIES FOR THE TOWN.

Policy OS.1.1 Provide adequate resources for maintaining the Town's recreational facilities.


Policy OS.1.2 Develop a Recreational Capital Improvement Program for identifying and scheduling future recreational projects.

Action OS.1.2.1 Develop playgrounds in Planning Districts 2 and 3.

Action OS.1.2.2 Acquire additional parcels for the construction of needed recreational opportunities.

Policy OS.1.3 Continue to coordinate with the School Department to provide recreational programs and facilities; coordinate with private agencies for maintenance.

Action OS.1.3.1 Coordinate the construction of new school facilities to include multiple purpose recreational areas for both school and town use.

Policy OS.1.4  Develop public awareness of the recreational opportunities provided by the Town.

Action OS.1.4.1 Continue the Recreation Department's aggressive program promoting awareness of Cumberland's recreational opportunities.

Goal OS.2 PROVIDE RECREATIONAL OPPORTUNITIES TO MEET THE NEEDS OF ALL CUMBERLAND RESIDENTS.

Policy OS.2.1 Relate the type and size of recreational facilities in each area to a demonstrated need for facilities.


Policy OS.2.2 Develop and promote recreational programs for all age groups.

Goal OS.3 MAINTAIN AND IMPROVE CUMBERLAND'S OPEN SPACE BY PRESERVING UNIQUE NATURAL AREAS AND DEVELOPING A SYSTEMATIC PROGRAM OF FURTHER OPEN SPACE ACQUISITION AND MANAGEMENT OF BOTH EXISTING AND ADDITIONAL ACQUISITIONS.

Policy OS.3.1 Preserve Cumberland's unique natural areas through land acquisition, acquisition of conservation easement, and transfer of development rights.

Action OS.3.1.1 Establish specific annual Open Space acquisition targets to continue the highly successful program of open space acquisition.


Action OS.3.1.2 Maintain an inventory of Open Space holdings.

Action OS.3.1.3 Develop a priority list for future potential acquisitions based on specific selection criteria and/or an open space ranking system. 

Action OS.3.1.4 Update the *Open Space, Recreation, Conservation and Tourism Guide Plan 1990-1996*.

Action OS.3.1.5 Coordinate efforts with the Cumberland Land Trust to identify and acquire tracts of land that will enlarge existing protected parcels in order to create a large area of contiguous open space from the Monastery to Diamond Hill State Park called the Cumberland Greenway.

Policy OS.3.2 Improve the regulatory framework by which Open Space areas are preserved in the Town of Cumberland.

Action OS.3.2.1 Amend the present Cluster Conservation Development Zoning Ordinance for greater clarity and to promote the optimum location for buildings away from scenic views, slopes, and wetlands; and to include the most meaningful contiguous high quality resource lands as the designated open ce portion of subdivisions.


Action OS.3.2.2 Modify the Town's Subdivision Regulations to require a mandatory set aside for open space which consists of

buildable land, rather than wetland or other areas with building constraints.


Action OS.3.2.3 Adopt a Cumberland Greenspace Protection Strategy Overlay District in the zoning ordinance.

Policy OS.3.3 Develop plans to fund open space purchases through revenues generated by impact fees.

Action OS.3.3.1 Examine the use of impact fees and/or mandatory subdivision land dedication to either the Town, Land Trust or Homeowner's associations to provide areas for Open Space.

Action OS.3.3.2 Establish a regular bond initiative for the purchase of Open Space. 

Action OS.3.3.3 Establish a restricted Open Space account with annual funding from the Town's share of the state's conveyance tax.

Policy OS.3.4 Support the Blackstone River Valley National Heritage Corridor Program and Blackstone River Valley Watershed Council  as a unifying theme and program for Open Space preservation.

Action OS.3.4.1 Adopt a Blackstone River Valley National Heritage Corridor Overlay District in the Zoning Ordinance

Action OS.3.4.2 Incorporate the Blackstone River Valley Regional Tourism Plan as an Element of this Comprehensive Plan.

Action OS.3.4.3 Consider acquisition of lands adjacent to existing protected areas for protection of significant plant and animal populations and communities and to provide

passive recreational opportunities.


Action OS.3.4.4 Coordinate efforts with the John H. Chafee Blackstone River Natural Heritage Commission's plans for the Warner Trail extension from Diamond Hill State Park to the Blackstone River Bikeway.




Action OS.3.4.5 Incorporate the goals and strategies of the DEM and Blackstone River Watershed Council's 'Blackstone River Watershed Action Plan' to protect water quality into the Town's Comprehensive Plan.

Goal OS.4 DEVELOP A DEFINITION OF ALLOWED USES FOR OPEN SPACE PROPERTIES AS DISTINCT FROM RECREATIONAL PROPERTIES. 

Policy OS.4.1 Provide adequate resources for maintaining the Town's Open Space properties.

Action OS.4.1.1  Follow existing management plans for RIDEM assisted Town properties and develop management plans for other Town properties.

Action OS.4.1.2 Establish an Open Space Commission to oversee the acquisition and management of properties. 

IX. CIRCULATION

A. INTRODUCTION

Cumberland's natural geography and historical development have influenced the layout of the present circulation system. Mendon Road and Diamond Hill Road, which form the major north/south corridors through town, lay along valley floors. East/west connections were also limited by topography. Development in the 19th and early 20th centuries of the southern section of town resulted in narrow roads and traffic patterns typical of cities laid out prior to the automobile. Continued growth as a residential/commuter community has increased the traffic volumes experienced during peak periods, especially on the two north/south highways, and their interchange with Route 295, as well as on roads serving residential areas.

Land use patterns along Diamond Hill Road and Mendon Road further exacerbate traffic pressures along the roadway. Increased frontage commercial development brings additional curb cuts and attracts additional traffic. Turning, stopping, exiting and entering automobile and truck traffic impede normal through traffic flow. Highway improvements can bring temporary relief to traffic congestion; however, improving a road frequently increases the desirability and accessibility of adjacent property, which only serves to attract more traffic in the long run.

The following examination of traffic circulation in Cumberland will focus on three circulation modes: highway, rail, and bike/pedestrian. The section on highways includes the functional classification of roads, changes in traffic volumes, the location of high concentrations of accidents, and planned improvements. The highway section also includes a description of highway oriented public transportation routes and availability. The rail section includes an inventory of existing rail facilities and commuter oriented rail services. The third section includes an inventory of existing and proposed bike/pedestrian circulation routes. The analysis will identify existing and potential problem areas.

State Planning Act Requirements

According to the R.I. Comprehensive Planning and Land Use Regulation Act, the Circulation Element “Shall consist of the inventory and analysis of existing and proposed major circulation systems, street patterns, and any other modes of transportation in coordination with the land use element”. The policies and implementation techniques must be identified for inclusion in the implementation program element.

The Act also requires consistency with State Guide Plan Elements:

- 110 Goals & Policies
- 121 State Land Use Policies and Plan
- 611 Transportation 2020: GTP
- 620 Transportation System Management Plan
- 621 Policy Statement: Public Transit
- 661 Freight Rail Plan

B. INVENTORY

1. Highway System

Cumberland's highway system consists of four categories of roads; these classifications are determined by the RI Department of Administration Statewide Planning Program. This section consists of a discussion of this functional classification system, changes in traffic volumes on major roads over the past twenty years, an analysis of traffic accidents, and recent and proposed improvements to the road system.

Functional Classification

Roads and highways throughout the state are grouped into classes or systems that are based upon the road's intended character of service. The method of classification assumes that all roads serve two basic functions: direct access to property and travel mobility. Distinctions are made as to the varying degrees that a road accomplishes these basic functions. Table IX-1 describes the functional classification system. Figure IX-1 shows the functional classification of roads and highways in Cumberland according to the Rhode Island Statewide Planning's Highway Functional Classification System for the State of Rhode Island, 2005-2010.

Table IX-1 Functional Classification System

Functional Classification	Description	Federal-Aid Funding Category	Jurisdiction
Interstate	Provide the highest level of travel mobility and no direct property access.	Interstate	State
Principal Arterial (connecting)	Provides a high level of travel services for a long, uninterrupted distance and are connecting links of rural arterials	Primary	State
Principal Arterial, (non-connecting)	Provides a high level of travel service for long, uninterrupted distance	Urban	State
Minor Arterial	Meets local access and circulation requirements.	Urban	State
Collector	Provide service to built up areas of towns and traffic generators of regional importance that are not directly served by arterials	Urban	Municipal
Local	Roads not designated as a state road under the functional classification guidelines and primarily provide direct access to property	---	Municipal

Table IX-2 2005-2015 Functional Classification Mileage

INTERSTATE (URBAN)			
SEGMENT NAME	FROM	TO	MILES
I-295	LINCOLN TL	NORTH ATTLEBORO TL	3.20

OTHER PRINCIPAL ARTERIALS (URBAN)			
SEGMENT NAME	FROM	TO	MILES
BROAD STREET	CENRAL FALLS TL	MENDON RD	1.50
DEXTER STREET	BROAD STREET	MASS STATE LINE	0.70
DIAMOND HILL ROAD	HIGH STREET	WRENTHAM ROAD	7.75
GEORGE WASHINGTON HIGHWAY	LINCOLN TL	MENDON RD	0.10
MENDON ROAD	LINCOLN TL	WOONSOCKET CL	6.75
WOONSOCKET IND. HIGHWAY	LINCOLN TL	WOONSOCKET CL	0.30
WRENTHAM RD	WOONSOCKET CL	MASS STATE LINE	2.90
Total			20.90

MINOR ARTERIALS (URBAN)			
SEGMENT NAME	FROM	TO	MILES
ANGELL ROAD	MENDON ROAD	DIAMOND HILL ROAD	1.55
JOHN STREET	LINCOLN TL	BROAD STREET	0.30
MANVILLE HILL ROAD	NEW RIVER ROAD	MENDON ROAD	0.70
MARSHALL AVENUE	MENDON ROAD	DIAMOND HILL	0.55
NATE WHIPPLE HIGHWAY	MENDON ROAD	MASS SL	4.25
WEST WRENTHAM ROAD	MENDON ROAD	PINE SWAMP ROAD	2.50
HIGHLAND CORPORATE PARK DRIVE	RI-99	WOONSOCKET CL	2.50
Total			11.35

Table IX-2 (Con't) 1995-2000 Functional Classification Mileage, Cumberland, RI

COLLECTORS (URBAN)

SEGMENT NAME	FROM	TO	MILES
ABBOTT RUN VALLEY RD	MASS STATE LINE	NATE WHIPPLE HGY	2.50
ABBOTT STREET	MILL STREET	HIGH STREET	0.25
ALBION ROAD	SCHOOL STREET	MENDON ROAD	0.70
BEARHILL ROAD	DIAMOND HILL ROAD	ABBOTT RUN VALLEY ROAD	1.00
BLACKSTONE STREET	BROAD STREET	HIGH STREET	0.30
ELDER BALLOU MEETINGHOUSE ROAD	WOONSOCKET CL	W. WRENTHAM ROAD	0.35
ENGLAND STREET	DEXTER STREET	HIGHLAND AVE.	0.50
FORESTDALE DRIVE	ALBION ROAD	SOUTHWOOD DR	0.25
HIGH STREET	ABBOTT STREET	DEXTER STREET	0.60
HIGHLAND AVENUE	HIGH STREET	ENGLAND STREET	0.45
HILLSIDE ROAD	DIAMOND HILL ROAD	ABOTT RUN VALLEY ROAD	0.60
HINES STREET	HIGH STREET	BEAR HILL ROAD	1.25
KAY STEET	MT PLEASANT	MENDON ROAD	0.45
LEIGH STREET	I-295	PINE ROAD	0.75
LITTLE POND ROAD	LIPPIT AVENUE	NATE WHIPPLE HWY	1.30
MARTIN STREET	LINCOLN TL	MENDON ROAD	0.45
MILL STREET	MENDON ROAD	BROAD STREET	0.25
MILL STREET	BROAD STREET	SPRING SREET	0.35
MT PLEASANT VIEW AVE	KAY STREET	MANVILLE ROAD	0.40
PINE ROAD	LITTLE POND ROAD	LEIGH ROAD	0.20
SCHOOL STREET	LINCOLN TL	ALBION ROAD	0.05
SECOND AVENUE	WOONSOCKET CL	VIVIAN AVENUE	0.10
SOUTHWOOD DRIVE	FORESTDALE DRIVE	WESTWOOD DRIVE	0.30
SPRING STREET	MASS SL	MILL STREET	0.35
VIVIAN AVENUE	SECOND AVENUE	MENDON AVENUE	0.10
WESTWOOD DRIVE	SOUTHWOOD DRIVE	MENDON ROAD	0.20
Total			14.50

Traffic Volumes

Traffic volumes are generally measured by annual 24-hour average daily traffic counts (AADT); this data is collected by the Rhode Island Department of Transportation. Figure IX-1 shows the AADT for Cumberland roads in 2000, compared with that of 1989. Long term traffic count data for Cumberland is available for very few locations. A review of all available 24 hour or greater traffic volume counts indicate that traffic volumes at other key locations in Cumberland have been rising as well. Change in Traffic volumes can be seen in Figure IX-1

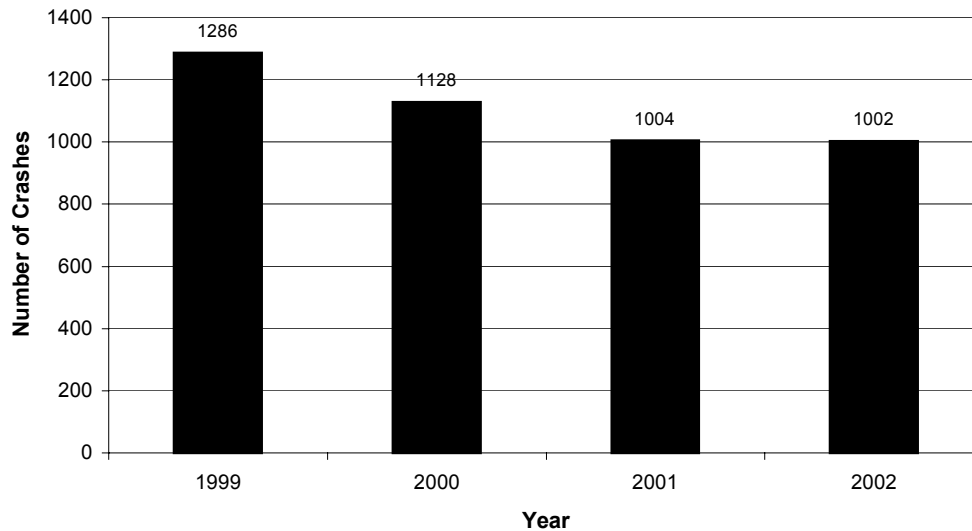
Traffic along Interstate Route 295 has risen dramatically over the past thirty years. From 1982 to 1989 the AADT increased by over 70 percent. In the next decade, traffic volume more than doubled. Different variables affect the volume growth on each highway classification. Volume growth on Interstate Route 295 may or may not affect local traffic. The increase in traffic on Route 295, however, is consistent with the traffic volume increases experienced on the local roads.

It must be recognized that traffic volume does not remain constant during the course of a day. AADTs do not distinguish between peak and off-peak hours of travel. Although specific data on traffic volumes at peak periods as compared to less congested times is not available, participants of a Growth Management Workshop held in 2002 identified a recent growth in congestion during peak periods at intersections, traffic signals, and shopping plazas.

Traffic Accidents

The recent accident data for Cumberland was obtained from the Cumberland Police Department, who have been collecting such data since 1999. Table IX-4 shows number of traffic accidents per year from 1997-2002, and shows a 22 percent decrease in traffic accidents during that time frame. This data cannot be directly compared to accident data contained in the 1991 Plan, as that information was obtained from the RIDOT's Accident Location Reporting System (ALRS), which is no longer in use. In general terms, the number of accidents per year has risen since the original Plan was developed, but has decreased slightly in the most recent years.

Figure IX-2 Number of Traffic Accidents, 1999-2002



It is noteworthy that the number of fatal accidents remained fairly stable, ranging from 1-5 per year; this is likely a result of increased vehicle safety.

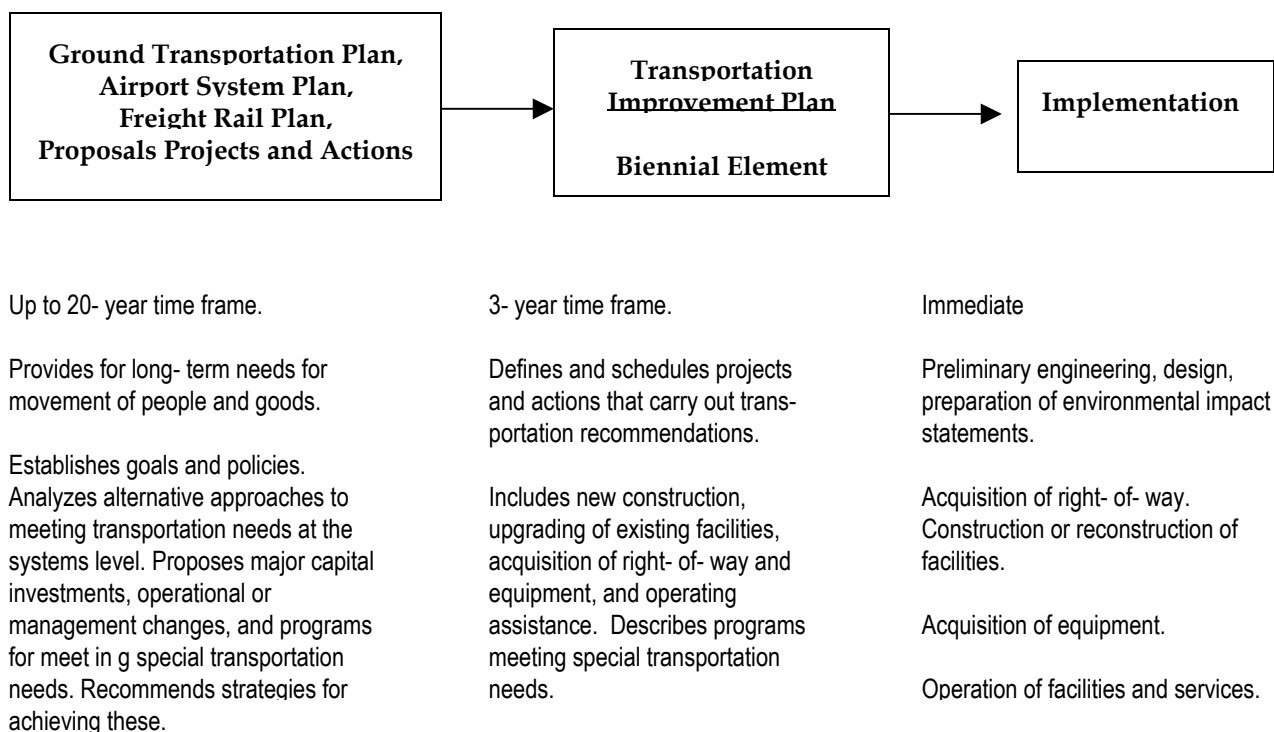
In addition to overall accident data, intersections with significant numbers of accidents in recent years were also identified. Intersections with the five highest numbers of accidents were identified for the years 2001-2003. Three intersections stand out as having the highest incidence of traffic accidents: Mendon Road at I-295, Diamond Hill Road at I-295, and Chapel Four Corners (Diamond Hill Rd/Angell Road). Both the Mendon/I-295 and Chapel Four Corners were identified in the 1991 Plan as locations with high rates of accident occurrences. Other locations with high numbers of accidents were other intersections with Mendon and Diamond Hill Roads, and several intersections with Broad Street. While these are areas where high traffic volumes occur and it is therefore expected to have higher rates of accidents, these intersections should be studied in order to improve safety.

The Cumberland Police Department publishes accident data in its Annual Report. The Police Department has recently begun gathering data on traffic counts as well as accidents. It would be beneficial for Cumberland's residents to have access to this data, possibly via inclusion in the Annual Report.

Road Improvements

The Rhode Island Department of Administration Statewide Planning Program is responsible for the development of a biennial Transportation Improvement Program (TIP). The TIP lists those projects which the state intends to work on during a six-year period; Figure IX-3 shows the planning process used in implementing transportation projects.

Figure IX-3 Transportation Improvement Planning Process



Source: 2002-2004 Transportation Improvement Program

Several projects are currently programmed for completion in Cumberland. Table IX-4 summarizes the projects for Cumberland that were included in the most recent TIP. Preliminary projects have no associated target date.

Table IX-4 Proposed Transportation Improvements

FUNCTION	FUNCTION	PHASE	YEAR
Rawson Road Bridges #457 & 460	System Preservation	Construction	2007
Howard Road Bridge #459	System Preservation	Construction	2008
Lonsdale Mill Village Improvements TEAC-103	System Management/ Enhancement	Construction	2003
Manville Access/Blackstone Navigation Sys	System Management Enhancement	Construction	2003
Scott Road I-295 Overpass to Little PondCounty Road	System Preservation Pavement management	Preliminary evaluation	N/A
Martin St. Mendon Rd to Martin St. Br	Study and Development	Preliminary evaluation	N/A

SOURCE: Transportation Improvement Program for the State of Rhode Island, October 1 2002 to September 30 2004, Statewide Planning Program, RI Department of Administration

Status of Projects Identified in the 1991 Plan

The 1991 Plan included projects from the 1989-1995 TIP, as well as RIDOT's 1987 Highway Improvement Plan (HIP - identified projects outside the TIP's 6-year timeframe). All but one of the projects identified in the TIP have been completed; renovations to the Berkely Bridge are included on the most recent TIP and construction is scheduled to begin in the near future. Several projects included in the 1987 HIP have been included in the most recent TIP: remediation the Howard Road, Rawson Road, and Rawson Canal Bridges, as well as study and development of improvements to Martin Street. Abbott Run Valley Rd improvements will be constructed using funds from a local bond. Table IX-5 shows the status of all highway improvement projects from the 1991 Comprehensive Plan.

Table IX-5 Status of Projects from 1991 Plan

Project	1991 Status	2003 Status
Berkeley Bridge #769	1989-1995 TIP	2002-2004 TIP (2003)
Church Street RR Bridge #943	1989-1995 TIP	Complete
Mendon Road - Broad	1989-1995 TIP	Complete
Woonsocket Industrial Hwy	1989-1995 TIP	Complete
Route 116/Route 122	1989-1995 TIP	Complete
Chapel Four Corners Intersection	1989-1995 TIP	Complete
Howard Road Bridge # 459	1987 HIP	On TIP (2007)
Rawson Road and Rawson Canal Bridges #457 & #460	1987 HIP	On TIP (2008)
Rte 114 (Diamond Hill Road) Marshall Ave to Wrentham	1987 HIP	Complete
High Street Dexter street to Marshall Ave.	1987 HIP	Complete
Martin Street - Lincoln TL to Mendon Rd	1987 HIP	On TIP (study & dev't)
Abbott Run Valley RD Nate Whipple Hwy to Mass SL	1987 HIP	Will be completed as a local, bond-funded project

Public Transportation

Bus Service: Three Rhode Island Public Transportation Authority (RIPTA) bus routes provide regular service in Cumberland. The bus routes are as follows:

- **Route 71** (Broad Street) - Provides access to downtown Providence, Woonsocket, the Bonanza Bus Terminal, and Lincoln Mall from stops located generally in the southern sections of Town.
- **Route 88** (Cumberland Hill/Albion- Manville) - Operates on Saturday only providing service to Lincoln Mall and downtown Woonsocket
- **Route 90** (Park and Ride) - Express bus service on weekdays mornings from the Chimney Hill Apartments (near the intersection of Albion Road with Mendon Road) to Lincoln Mall and on to Providence. This service also runs on weekday evenings for the return trip. There is also service from Lincoln Mall to Providence via Pawtucket to Woonsocket.

Paratransit/Elderly Transportation - The Cumberland Senior Center owns and operates a van transportation service for members of the Center. However, the van is old and requires replacement. Transportation for regional workshops, meal sites, medical treatment, and purposes is also available to segments of the elderly and disables population from operators including:

- Northwest Transportation Services (Woonsocket)
- Blackstone Valley Chapter, RIARC (Pawtucket)
- Comprehensive Older Adult Services, Inc. (Pawtucket)
- R.I. Chapter of the National Multiple Sclerosis Society (Cranston)
- United Cerebral Palsy of R.I. (Pawtucket)
- RIPTA - RIDE Program (ADA Complementary Paratransit Service)

2. Rail Transportation

The Providence and Worcester (P&W) railroad provides the only interstate freight service in Rhode Island; one of its principle yard operations is located in the Valley Falls area of Cumberland. While no commuter railroads or stations are located within Cumberland itself, several are located in the vicinity of the town. Figure IX-1, which illustrates the location of railroads and depots in and near the Town.

Commuter Rail

Commuter rail service to Boston via the Massachusetts Bay Transit Authority (MBTA) commuter rail is available within a short driving distance in Attleboro and South Attleboro, Massachusetts as well as in Providence, Rhode Island. AMTRAK scheduled service is also available with direct connections to locations along the northeast corridor such as New York, Philadelphia, Baltimore, and Washington, D.C. The new AMTRAK Acela Express is available at the Providence station for high-speed service to Boston, MA and Washington, DC.

Freight

The P & W main freight rail line generally follows the historic Blackstone River/Canal route. Figure IX-1 shows the location of railroads in Cumberland. Several spurs and

sidings provide direct rail access to industries along the route.

The Wrentham Industrial Track was originally part of the R.I. Mining Railroad Company and later became part of the Rhode Island and Massachusetts Railroad with service from Valley Falls to Franklin, Massachusetts. The entire northern part of this route from Adamsdale to Franklin in Massachusetts was abandoned in 1941. The P & W received permission from the Interstate Commerce Commission to abandon the Wrentham line as it no longer carried any revenue traffic.

The Rhode Island State Rail Plan prepared by the R. I. Department of Transportation-Division of Planning (June 1990) identified over 400 acres of vacant land along the P & W main line in Cumberland currently industrial. Although the 1991 Plan identified this property as an opportunity for a rail supported industrial park, the development potential of this site is limited due to environmental constraints (floodplain location, CERCLA listing).

3. Pedestrian Walkways/Bike Paths

In 1991 there were no formal pedestrian walkways or bike paths in Cumberland, although plans for a linear bike path in conjunction with the Blackstone River State Park, a bikeway along Route 116, and development of hiking trails just north of Albion bridge and expansion of the trail system onto town-owned land between Manville and Albion were underway. Since the original Plan there have been several improvements to pedestrian and bicycle circulation. Construction of the Blackstone Valley Bikepath is under way. Cumberland's bikepaths are illustrated in Figure IX-1.

A series of local trails have been improved by the Recreation Department in conjunction with the Department of Public Works and the Boy Scouts. The Town is eager to continue improving its trails and is currently trying to secure funds to inventory its entire trail system, purchase a machine to assist with trail grooming, and to improve an existing trail on the Monastery. As identified in the Blackstone River Valley Corridor Commission's 2003 report, *Trails and Greenways*, many of Cumberland's trails are not connected to one another and therefore are not as useful as they could be. The report also cites the regional Warner Trail running through Cumberland as one more important trail that could greatly benefit from improvement.

C. Findings

Land use patterns along Diamond Hill Road and Mendon Road exacerbate traffic pressures along those roadways. Increased frontage commercial development brings additional curb cuts and attracts additional traffic. Turning, stopping, exiting and entering automobile and truck traffic impede normal through traffic flow. Traffic volumes along Cumberland's principle arterials, Mendon Road and Diamond Hill Road, have increased significantly over the past two decades years. Intersections with the most frequent accidents are along Diamond Hill Road, Mendon Road, and Broad Street. The Chapel Hill Four Corners intersection also continues to be a location of high accident numbers.

Traffic problems are an important issue for many of Cumberland's residents, and will be an important component of the Town's growth management plan. While improving traffic flow is one consideration, for ease of maintenance in certain areas the effects of traffic calming methods need to be considered, especially in areas already congested where safety needs are paramount. On occasion, dead end streets may be preferable to connected streets in order to preserve neighborhoods or protect the environment.

The Pedestrian walkway and bikepath system has improved over the past decade. Extension of these alternative means of transportation, including creation of a Cumberland Greenway Trail System (identified in the Open Space Element of this Plan), is a high priority for the town.

D. Goals, Policies, and Recommendations

Goals and policies for circulation were formulated based upon the inventory and analysis of the previous sections. Recognizing the mutual compatible interests of the State and of the Town is important for formulation circulation goals. The State has formulated goals, which local plans should consider.

State Planning Act Goals

- To promote orderly growth and development that recognizes the natural characteristics of the land, its suitability for use and the availability of existing and proposed public and/or private services and facilities.
- To promote an economic climate which increases quality job opportunities and overall economic well being of each municipality and
- To encourage the use of innovative development regulations and techniques that promote the development of land suitable for development while protecting our natural, cultural, historical and recreational resources and achieving a balanced pattern of land uses.

Cumberland Circulation Goals

Goal C.1 IMPROVE AND MAINTAIN A SAFE, CONVENIENT AND EFFICIENT TRAFFIC CIRCULATION SYSTEM THROUGHOUT THE TOWN.

Policy C.1.1 Continue to encourage and cooperate with the State Department of Transportation to maintain and improve the State road system in Cumberland.

Action C.1.1.1 Establish a systematic and comprehensive program for road maintenance.

Policy C.1.2 Provide for the orderly and adequate integration of roads within existing and proposed subdivisions.

Action C.1.2.1 Modify subdivision regulations to connect adjacent

subdivisions when possible.

Policy C.1.3 Maintain the functional integrity of the existing road system by appropriate land use controls and design review standards.

Action C.1.3.1 The Town should prepare and adopt a Traffic Impact in the Zoning Ordinance revisions.

Action C.1.3.2 Prepare, adopt, and implement design standards for local roads based on the functional classification of these roads as part of its revisions to the Subdivision Regulations.

Goal C.2 CORRECT EXISTING ROAD DEFICIENCIES TO IMPROVE SAFETY AND TRAFFIC FLOW.

Policy C.2.1 Encourage the State to proceed with their planned improvements to Diamond Hill Road and Mendon Road.

Policy C.2.2 Provide for proper construction of new roads and accompanying drainage facilities.

Goal C.3 ENCOURAGE THE DEVELOPMENT OF LINEAR RECREATIONAL TRANSPORTATION FACILITIES WHICH PROVIDE AN ALTERNATIVE TO AUTOMOBILE TRAVEL.

Policy C.3.1 Plan and integrate a trail system linking major areas by pedestrian and bicycle trails.

Action C.3.1.1 Continue Development of the pedestrian and bicycle trail in conjunction with the Blackstone River Valley National Heritage Corridor.

X. LAND USE

A. INTRODUCTION

Land use is the expression of human activity on the land. It is the principal focus of the comprehensive planning process. As such, it requires the integration of all other elements of the Plan. This element identifies historic and existing land uses and recommends future land use patterns. Land uses are compared to the existing zoning ordinance and inconsistencies are identified.

The major product of the Land Use Analysis is the formulation of a future land use plan. This Plan, in conjunction with the data provided in the other Comprehensive Planning Elements, will be used to implement the Town's long-range goals and objectives regarding its physical development.

State Planning Act Requirements

According to the Rhode Island Comprehensive Planning and Land Use Regulation Act, the Land Use Plan Element shall:

"Designate the proposed general distribution and general location along with the interrelationship of land use for residential, commercial, industrial, open space, recreational, community facilities and other categories of public and private uses of land. The Land Use Element is based upon the other elements contained in Section 45-22.2-6 (the Act) and it shall relate the proposed standards of population density to the capacity of the land and available or planned facilities and services. A land use plan map, illustrating the future strategy and land use policy of the municipality as defined by the comprehensive plan is required. The land use plan must contain an analysis of the inconsistency of the existing zoning districts, if any, with the land use plan. The land use plan should specify the process by which the zoning ordinance and zoning map shall be amended to conform to the comprehensive plan."

B. LAND USE PATTERNS

Cumberland's pattern of land development distinguishes it from other communities in the State; this historical development creates a special sense of place in the Town. This analysis describes past settlements to provide insight into present and future land use activities. Contemporary land uses are then inventoried, including changes that have taken place since the original Plan. Finally, future land use is determined: results of three build-out analyses are described in order to provide insight into the impacts of unplanned growth, the 2010 Land Use Plan devised in 1991 is discussed. Finally, the Town's growth management and visioning initiatives are summarized.

1. Historic Land Use

Cumberland's natural environment greatly influenced the way in which the community was developed. Such factors as its hilly, wooded uplands, numerous streams and ponds, and particularly the Blackstone River shaped its development. Cumberland's rich natural resources of mineral deposits, water and power led to the establishment of a number of industries. Iron ore was mined and manufactured at several locations in Cumberland until the time of the American Revolution, and granite was quarried at Diamond Hill. Gristmills for grinding grain grown on the farms and sawmills for processing forest timber into lumber were erected along the streams and rivers.

In the eighteenth and nineteenth centuries, Cumberland evolved from its colonial beginnings as a series of scattered agricultural settlements to established hamlets centered around a church, a mill, or a shop. The industrial use of waterpower transformed the western and southern sections of Cumberland into mill villages which still retain their names today – Ashton, Berkeley, and Lonsdale.

The first cotton mill, erected around 1800 at Robin Hollow, was followed by a second at nearby Happy Hollow around 1818. While the mills were initially somewhat isolated, completion of the Blackstone Canal in 1828 and the Providence & Worcester Railroad in 1847 linked them, as well as the whole length of the Blackstone Valley, to the regional urban spheres of Providence and Worcester. A smaller line, constructed in 1877, connected the eastern part of Cumberland to Franklin, Massachusetts.

In the eastern part of Town, along Abbott Run, a machine shop was erected in 1825 at the small hamlet of Arnolds Mills. Saw and grist mills continued in operation at Grants Mill and other scattered locations in the agricultural uplands. Granite quarrying near Diamond Hill, as well as less prosperous coal, copper, and other mineral mining, acted as a catalyst for development in that area. Massive railroad and road bridges built over the Blackstone River, and smaller iron truss bridges built on secondary roads, helped connect different hamlets of the Town.

In 1867, the heavily industrialized village of Woonsocket Falls, in the northwest corner of Cumberland, split off and became the Town of Woonsocket. During this time, the political center of town shifted from Cumberland Hill to Valley Falls, where a new Town Hall was constructed in 1894. In the late nineteenth and twentieth centuries, Valley Falls emerged as the largest, most densely developed, and urban of the Town's villages.

As the automobile came into more widespread use and as improvements were made in the existing roadway system, development began to concentrate along the major arteries. Diamond Hill Road and Mendon Road stimulated the development in Cumberland along their north-south corridors.

2. Contemporary Land Use

The starting point in formulating a land use plan is to examine recent patterns of land development. Land development is generally not reversible, therefore, current patterns of development will identify the parameters for future land use options. In this section, recent patterns of land use are identified based on information obtained from the Rhode Island Statewide Planning Program.

Land use data for the years 1970, 1988, and 1995 were obtained from the Rhode Island Office of State Planning. For each of these three years, the State determined land use data by interpretation of aerial photographs. However, the exact methods used varied between these studies: photographs used were of different scales, and land use classifications altered. Because of differing methodologies it is not possible to make absolute comparisons. In addition, land use has continued to changes since this data was analyzed. However, the data does illustrate the general evolutionary pattern of

land use within the Town between the years 1970 and 1995.

Because of the different methodologies used in classifying land use in Rhode Island, and because the State Planning System's classification system is more detailed than is necessary for identifying major trends in land use, information from these three studies has been combined into several general categories so that information can be more easily compared. These categories are further generalized into Agricultural, Developed, and Open Space Categories. Definitions of these categories are shown in Table X-1, while land use as of 1995 is illustrated in Figure X-1.

Table X-1 Land Use Categories

Category	Definition
Developed Land	Consists of residential, commercial, industrial, infrastructure, developed recreation, institutions, cemeteries, quarries, waste disposal areas, and vacant land located in urban areas.
Agricultural	Includes tillable cropland, pasture, orchards, turf farms, and nurseries.
Open Space	Land and water permanently protected from Development
Vacant Land	Land and water that is currently undeveloped or is developed for certain recreational uses such as golf courses but has no permanent protection from future development.

Developed Land

As shown in Table X-2, Developed Land consists of several different categories. While developed land as a whole has increased over the 1970-1995, from 21 percent to 35 percent of Cumberland's land area, not all categories of developed land have grown to the same degree. This section discusses specific changes that have occurred in developed land use over the twenty-five year time period.

Table V-2 Developed Land

Land Use	1970		1988		1995	
	Acres	% Land	Acres	% Land	Acres	% Land
RESIDENTIAL	2,836	15.7	4,533	25.1	4,784	26.5
COMMERCIAL	198	1.1	287	1.6	294	1.6
INDUSTRIAL	124	0.7	280	1.5	314	1.7
COM/IND MIXED	N/A	N/A	0	0.0	7	0.0
INSTITUTIONAL	139		218	1.2	222	1.23
TRANSPORT & UTILITIES	156	0.9	417	2.3	429	2.4
RECREATIONAL	81	0.4	134	0.7	149	0.8
URBAN OPEN & CEMETARIES	358	2.0	67	0.4	103	0.6
Total	3,892	21	5,936	33	6,302	35

Residential - The most significant change between 1970 and 1995 in the amount of land considered developed in Cumberland has occurred in the form of residential development.

In 1970, there were 2,836 acres in residential use, this increased to 4,533 acres in 1988 and 4,784 acres in 1995. The amount of land devoted to residential use nearly doubled during the 1970-1995 time period. Residential land use continued to increase between 1995 and 2003, this trend will continue unless a plan for managing growth is implemented.

Residential land use can be broken into three categories based on population density: low, less than 0.5 units/acre; medium, 0.5-4 units/acre; and high, greater than 4 units/acre. Most of the residential growth between 1970 and 1988 occurred in the medium density residential category, with approximately 80 percent of increase in residential land area occurring in this category. This trend has changed in the most recent decade, of the 250 acres converted to residential use between 1988 and 1995 over 50 percent was used for high-density development.

Commercial- Includes retail and office uses such as stores, service stations and professional office buildings. Commercial uses in Cumberland have generally developed in a strip configuration along the primary transportation routes, Diamond Hill and Mendon Roads. The amount of land devoted to commercial use has remained fairly constant between 1970 and 1995, accounting for a little over one percent of the total land area.

Industrial - Industrial land uses include manufacturing plants, light industrial facilities,

and sand and gravel extraction operations. The older industrial areas in Cumberland are located along the Blackstone River. New industrial facilities have developed adjacent to Interstate 295 at major intersections such as Diamond Hill Road, and at the Highland Corporate Park. In 1995 there were over three hundred acres of land in Cumberland was devoted to industrial use. This amount has subsequently progressed as construction of new industrial facilities has taken place at Highland Corporate Park. When this Industrial Park is fully developed, industrial land use will account for 438 acres of Cumberland's land.

Recreation - Developed recreation primarily includes urban parks and playgrounds. In 1995, 149 acres were identified in this category, an increase from 134 acres in 1988. Nevertheless, this category accounts for a very small proportion of Cumberland's land use.

Institutional - This land use includes public, educational, health, correctional, and religious facilities. Institutional use has remained constant at approximately one percent over the twenty-five year period.

Agricultural Land

Parcels of land which are actively cultivated for agricultural purposes were included in this land use category. This includes farms, pastures, and orchards. The agricultural areas are generally found in northern, the more rural sections of Cumberland. Agricultural land use declined from ten percent to seven percent from 1970 to 1988, and has remained stable since.

Undeveloped Land

This category consists of forest and brush land, water, wetland, and barren land such as beaches and rock outcrops. This category accounted for 12,296 acres in 1970, 10,613 acres in 1988, and 10,357 acres in 1995. The 256-acre loss between 1988 and 1995 occurred as a result of the 251 acres of residential development over that time period.

The Statewide Planning Programs land use inventory does not distinguish between

vacant land that is preserved and areas that can potentially be developed. However, these categories are very different. Open Space is land protected from development, this accounted for 4,488 acres of land in 2003, a large increase from 1991. However, there are still large areas of vacant land that may be build upon in Cumberland. It is essential to utilize this remaining land wisely, according to the Goals and Policies set forth in this Plan.

3. Future Land Use

In order to implement the goals and policies set forth in the various elements of the plan, it is necessary to establish how land will be developed in the future. First, a build-out analysis must be conducted determine to what degree future land use will comply with these goals and policies under existing regulations. Next, a future vision of land use for the Town must be devised. In order to implement this vision, a variety of innovative techniques must be used.

Build-out Analysis

A build-out analysis provides an estimate of the maximum development potential of a municipality based on existing zoning requirements. This provides an estimate of the maximum number of housing units that could potentially be constructed if all buildable land was to be developed. This information, along with Census information, can then be used to estimate the maximum population of an area based on complete development of all available land, as well as associated need for infrastructure and services.

Three build-out analyses of Cumberland have been conducted over the past decade. The first, in 1990 by the Maguire Group (an independent firm hired for assistance in development of the original Plan), was included in the 1991 Comprehensive Plan. The Town of Cumberland conducted a separate analysis in the mid-90's, the Residential Development Forecast Report. The most recent build-out analysis was conducted by the the John H. Chafee Blackstone River Valley Natural Heritage Corridor Commission (BRVNHCC).

The general method utilized by each of these entities was to determine the amount of land

considered buildable in each of Cumberland's Zoning Districts, generally by subtracting land that has already been developed and unbuildable land such as water and wetlands. Next, zoning regulations were applied to determine the maximum number of units that can be built. Finally, the average number of residents per household was used to determine potential number of new residents at the build-out scenario.

The Maguire Group's analyses projected that an additional 3,879 new residential units could be built, corresponding to 9,697 additional residents and a maximum population of 38,531. Cumberland's residential forecast predicted more housing units: 4,145, with 10,362 new residents resulting in a population of 39,400. The BRVNHCC study predicted only 2,453 new additional residential lots, but it predicted the highest maximum population 41,897, based on 10,057 additional residents.

Each of the three build-out analyses were conducted using different methodologies and based on different underlying assumptions; therefore results cannot be directly compared. Two of the major differences among the analyses were the figures used for Cumberland's population at the time of the study and average household occupancy. The Maguire study was based on an estimate of Cumberland's 1990 population, the Planning Department's build-out was based on 1990 Census data, and the BRVNHCC's analyses relied on 2000 Census data. While both the Maquire Group and the Cumberland Planning Department assumed average occupancy rate to be 2.5, the BVVHCC used 4.1 for this figure.

In order to more directly compare the results of the studies, data was transformed using each individual study's estimate of additional households, population at the time of the study, and an average household occupancy rate of 2.59 (from 2000 census). The following table, X-5, compares results of the three analyses when transformed in this manner.

Table X-5 Build-out Analysis

Estimate	Maquire Group (1990)	Town of Cumberland (1995)	BRVNHCC (2000)
Buildable Land	9,127 acres	N/A	6,986 acres
Additional Units	3,879	4,145	2,453
Additional Residents	10,047	10,736	6,353
Maximum Population*	39,085	41,175	38,193

*Additional residents and actual population at time of analysis

Despite the different methodologies used, results of these three analyses were quite similar, with estimates ranging from approximately 38,000 to 42,000 people. In addition, it must be noted that these build-out analyses represent conservative estimates of the development potential of the remaining vacant land in Cumberland. Because Cumberland's current Zoning regulations allow for higher development densities in areas serviced by sanitary sewers and municipal water, the maximum population would be higher than expected if the infrastructure is extended.

The projected increase in population brings with it additional demand for infrastructure and services. Subdivision of land and construction of new housing will reduce the amount of vacant open space land in Cumberland, thereby negatively impacting its rural/suburban character. In addition, more school children will mean a need for increased capacity at Cumberland Schools. As population increases, greater pressure is put on natural resources, water quality is especially at risk. Water demands by this additional population could range from 500,000 to 750,000 gallons per day. An additional population of this size is estimated to generate 17 to 25 additional tons of solid waste per year. Traffic problems, currently an important issue for the Town's residents, would increase significantly.

Land Use 2010

The original Comprehensive Plan contained a plan for future land use in Cumberland, the "2010 Land Use Plan". This Plan did not recommend radical change to the Cumberland's pattern of development, rather, it encouraged and reinforced existing development trends. Its emphasis was on in-fill residential development of existing neighborhoods, modest expansions of existing industrial areas, consolidation of neighborhood commercial activities and preservation of Cumberland's unique natural and cultural resources. Figure X-2 shows this Plan for future Land Use.

As part of the requirements of the Rhode Island Comprehensive Planning and Land Use Regulation Act, the original Plan include a zoning discrepancy analysis to compare planned land uses with the (then) existing zoning districts. Cumberland's Zoning Ordinance has been amended several times since approval of the plan, resulting in changes that have brought zoning substantially into conformance with the 2010 Land Use Plan. However, some additional changes to zoning are still necessary. These include:

1. Modification of zoning at Highland Corporate Park to clarify the Town Council's original intention to allow for both commercial and industrial uses in the park.
2. Some parcels of land currently being used for industrial purposes are zoned residential. However, due to the nature of industrial activity on these properties, they are no longer appropriate for residential development and should therefore be rezoned industrial so they can maintain their current use.
3. All publicly owned land is currently zoned as Open Space. Although an Open Space category is not specifically defined in the Zoning Ordinance, this may not be appropriate for land with schools and other public buildings on it.
4. On Assessor's Plat (AP) 1, the land between Abbott, Titus and High Street is zoned Industrial-1 when it is used almost entirely for residential purposes. We should explore rezoning this to Residential-3.
5. On Assessor's Plat 3, there is property abutting Macondry Street, between Elm and Geldard that is currently zoned Residential-2, when in fact it is currently used for manufacturing purposes. The Town should explore rezoning this for industrial uses, as land that has historically been used for industrial uses should not be converted to residential unless the property is of historic value, such as mill buildings.
6. Between the railroad right of way and Curran Road, on Assessor's Plat 5, the property is primarily used for single-family residential homes and thus should probably be rezoned Residential-1 and not Residential-2. The railroad right of way should be zoned Open Space rather than Residential-2.
7. There appears to be some spot zoning on Assessor's Plat 6; lot 3 should probably be zoned Residential-2 instead of Commercial-1, the property is surrounded by residential development and there is a house located on lot 3. There is a similar issue on Assessor's Plat 10, where a lot on High Street is currently zoned Commercial-1, but should perhaps be considered for Residential-2 zoning.
8. Several mill buildings and vacant land on Factory Street (Assessor's Plat 11) are being developed as an affordable housing project - the land is zoned Commercial-2, but should be rezoned as Residential-3.
9. Assessor's Plat 18, lot 549 adjacent to the Miller's Brook Subdivision is currently Agricultural-2, but based on the results of a recent legal case should probably be zoned Residential -1.

10. On Assessor's Plat 27 between lots 23 and 27 there are a series of mixed commercial and residential uses along Diamond Hill Road. The zoning and variances that have been given to several of these lots suggest that further review of this area may be appropriate.
11. Several lots along Mendon Road on Assessor's Plat 58 are currently zoned Industrial but in fact are being used for buildings with commercial activities on the ground floor and residential on the top floors. We should perhaps consider rezoning this area to reflect the actual uses, as mixed uses should be encouraged in this older, densely populated neighborhood

While the 2010 Land Use Plan recommended giving approximately 2,200 acres a new Open Space designation, the Town continues to struggle with property rights issues associated with such an action; prohibiting all uses on certain parcels of privately held land raises the takings issue. In the case of property with significant natural resources, the Town has been attempting to either purchase the land outright or purchase the development rights in lieu of rezoning and prohibiting all development.

Planning for Future Growth

As residential development in Cumberland continues and build-out scenarios draw nearer, the urgency associated with preserving Cumberland's historic character and protecting its resources grows. Pressure on services and infrastructure is increasing, while solutions for easing that pressure less obvious and more costly. Within the last few years, the Town has stepped up its attention to these issues and is taking a two-pronged approach to the issue by addressing two primary questions:

- How do we better manage the pace of growth in the first place?
- How do we force future development to be more attractive, functional, and environmentally sound?

The Town is working on developing answers to these complicated issues in two ways: a Growth Management Program and a visioning effort. Development of strategies to address unrestricted, inadequately planned growth is only the first step in preserving

Cumberland's character. Procedures and regulations must be changed so as to implement these strategies; it is essential that these procedures be adhered to in order to manage Cumberland's growth and maintain the unique character of the Town.

Growth Management- The Town of Cumberland is working on developing a strategy for managing growth in the future. As part of its recently established Growth Management Initiative, specific strategies for managing growth will be analyzed to determine the most effective method for Cumberland. Most likely, the results of these studies will be incorporated into this Comprehensive Plan through the amendment process. Methods of growth management that will be assessed through the growth management planning process include:

- **Adequate Public Facilities Standards** – Allows growth in areas properly serviced by facilities and infrastructure, while prohibiting growth where facilities are inadequate.
- **Rate of Growth Phased Programs** – Establishes a set rate of growth based on studies that examine the community's ability to absorb the impacts of growth.
- **Growth Caps** – Limits the amount of development that may occur in a year.
- **Impact/Conveyance fees** – Requires new development to absorb the costs of municipal costs associated with the new development.
- **Open Space Acquisition** – Acquiring land so that it cannot be developed.
- **Zoning** – Using innovative techniques such as cluster subdivisions to reduce and manage growth.

The Town is making progress in managing growth. A building permit cap has been enacted to limit residential growth to one percent per year. Concurrently, studies are taking place to further understand the impact of residential growth on public water and sewer facilities, schools and traffic. The use of vacant land in the densely developed portions of Town is something that requires further consideration. These areas, already close to the transportation corridors with existing public water and sewer linkages should be the areas targeted for infill development, rather than new construction in agricultural zoned areas. In addition, the Town has been considering implementing a five-year Capital Improvement Plan in order to better anticipate and finance capital costs. Ultimately, the Town will use impact or conveyance fees to assist with the financing of capital improvements.

Visioning- The second part of Cumberland' approach to future land use is to develop strategies to improve the Town's visual quality. Town has hired the firm of Gates & Leighton to help Cumberland's residents articulated design preferences. The results should be available soon in a document summarizing this visioning effort. Based on these efforts the Town will be developing performance standards for commercial, industrial, and multi-family residential development. These standards will range from the appearance of the building and its landscaping to ways of improving circulation patterns and protecting the environment.

C. FINDINGS

Similar to the findings of the 1991 Community Survey, residents continue to feel that the Town is growing too quickly and in doing so is losing its suburban/rural character. Workshop participants in 2002 and 2003 suggested that the Town limit its water and sewer infrastructure in order to manage residential growth, continue purchasing open space to reduce the amount of lots that can be developed and protect natural and scenic resources, and to consider the use of impact or conveyance fees to help fund services and facilities. A cap on building permits has been imposed while the Town continues to study various growth management options.

Beyond the significant residential growth and its acquisition of open space, several regulatory changes have taken place since 1991 that have helped the Town manage its growth and preserve its character. The Zoning Ordinance allows for cluster developments and planned unit developments. Performance standards are in the process of being created to facilitate the Development Plan Review process (formerly known as site plan review, conducted by the Design Review Commission). Zoning Ordinances, as proposed in 1991, have been adopted pertaining to Soil Erosion and Sediment Control and stormwater runoff; Subdivision Regulations now also require plans that specify how these two issues are to be handled on-site. A digitized zoning map (overlayed on the Assessor's Plat Maps) is in the process of being prepared and should be available electronically by Fall 2003. Specific trends in Land Use are identified below.

Residential - The amount of land devoted to residential use has increased significantly. In 1960 there were 2,836 acres in residential use, as of 1995 there are 4,784 acres in residential use. The amount of land devoted to residential use in Cumberland is continuing to rise.

The Town has substantial growth potential remaining within its residentially zoned areas. The Build out analyses estimates that between 2,500 and 4,000 new residential units could be built, for a total maximum population of over 38,000. This represents a substantial increase in Cumberland's population.

The principle growth area in the Town is the area north of I-295, even though portions of this land have development constraints such as poor soils, steep slopes or wetlands. This area is in the watershed for a public drinking water supply source. Development in this area must be limited due to its potential impacts on water quality.

Commercial-Land devoted to commercial use has remained fairly constant in recent decades. Commercial land use occupies approximately 300 acres of land in Cumberland. The majority of commercial activity is located along the transportation corridors of Diamond Hill Road and Mendon Road.

The existing Zoning Ordinance does not adequately distinguish between the various commercial activities in terms of uses allowed, dimensional requirements, parking requirements, and design standards. The Economic Development Element did identify that the current pattern of development, building style and density is often an obstacle to the expansion of neighborhood commercial zones.

Industrial-The amount of land devoted to industrial use has increased from 280 acres in 1970 to 314 acres in 1990. However, its percentage of the Town's total developed area has remained constant for the time period 1975 to 1990. Major concentrations of industrial land use occurs along the Blackstone River and at the intersection of I-295 and Diamond Hill Road. New industrial development is taking place at the Highland Corporate Park, located on the Woonsocket Town Line.

Open Space and Recreation-The amount of land devoted to open space and recreation has shown a dramatic increase between over the past decades, as development pressure had placed valuable natural resources at risk. In the past decade, over 2,000 acres of land have

been afforded protection from development, bringing the total acreage of protected land to over 4,000 acres.

Growth Management

The Town has recently began the complicated process of devising a strategy to address Cumberland's growth. Some steps have been made, such as instituting a building cap and purchasing open space. Once a plan specifically designed to manage growth in Cumberland has been created it will be included in this Comprehensive Plan as an Amendment.

D. GOALS, POLICIES, AND RECOMMENDATIONS

Goals and policies for land use and growth management have been formulated based on the inventory and analysis of the previous sections.

State Planning Act Goals

- To promote orderly growth and development that recognizes the natural characteristics of the land, its suitability for use and the availability of existing and proposed public and/or private services and facilities.
- To promote a balance of housing choices, for all income levels and age groups, which recognizes the affordability of housing as the responsibility of each municipality and the state.
- To promote the protection of the natural, historic and cultural resources of each municipality and the state.
- To promote the preservation of the open space and recreational resources of each municipality and the state.
- To encourage the use of innovative development regulations and techniques that promote the development of land suitable for development while protecting our natural, cultural, historical and recreational resources and achieving a balanced pattern of land uses.
- To ensure that municipal land use regulations and decisions are consistent with the comprehensive plan of the municipality and to insure state land use regulations and decisions are consistent with state guide plans.

Cumberland Land Use Goals

Goal LU.1 DEVELOP A BALANCED AND HARMONIOUS PATTERN OF LAND USE WHICH PROVIDES ADEQUATE AND SUITABLE SPACE FOR ALL LAND USE ACTIVITIES.

- Policy LU.1.1** Use existing residential concentrations and village centers as integral parts of the growth areas.
- Policy LU.1.2** Utilize the various natural resources areas as open space corridors and buffers in developing the pattern of land use in Cumberland.
- Policy LU.1.3** Designate nodal type planned commercial development which provides for small scale, mixed use (residential/commercial) neighborhood oriented buffered commercial development rather than strip commercial or large-scale shopping center development.
- Policy LU.1.4** Promote expansion of existing industrial areas which are capable of supporting economic development and compatible with surrounding land use activities.
- Goal LU.2** RELATE LAND USE DEVELOPMENT AND DENSITY TO THE NATURAL CAPABILITY OF THE LAND TO SUPPORT SUCH DEVELOPMENT AND THE CAPABILITY OF THE COMMUNITY TO PROVIDE ADEQUATE PUBLIC SERVICES.
- Policy LU.2.1** Improve and maintain existing public services and facilities, limit expansion in order to maintain the difference between rural and village character.
- Policy LU.2.2** Develop a land use strategy which protects valuable natural and cultural resources and areas.
- Goal LU.3** COORDINATE LAND USE ACTIVITIES WITH THOSE OF ADJACENT COMMUNITIES.
- Policy LU.3.1** Promote regional cooperation and planning initiatives.

Action LU.3.1.1 Formulate a regional partnership to discuss issues of mutual interests among Planning Departments of the Blackstone Valley Communities.

Goal LU.4 UTILIZE A WIDE VARIETY OF INNOVATIVE LAND USE REGULATIONS AND TECHNIQUES WHICH MAINTAIN THE QUALITY OF LIFE AND PROVIDE GUIDANCE FOR FUTURE GROWTH.

Policy LU.4.1 Develop and adopt land use regulations which are consistent with this Comprehensive Plan and the revised State Zoning Enabling Legislation.

Action LU.4.1.1 Implement a Blackstone River Valley National Heritage Corridor Overlay District in the Zoning Ordinance.

Action LU.4.1.2 Implement a Watershed/ Aquifer Protection Overlay District in the Zoning Ordinance.

Action LU.4.1.3 Implement a Wastewater Management Overlay District in the Zoning Ordinance.

Action LU.4.1.4 Develop a Capital Improvement Program (CIP).

Appendix X - Recommendation Details

Overlay Districts

Overlay districts are areas of special concern to the community. An overlay district places supplementary controls on parcels in addition to regular zoning requirements. These controls are specifically designed to regulate the special concerns of the community within the designated area. For the Town of Cumberland, this plan has recommended the following overlay districts.

- **Blackstone River Valley National Heritage Corridor Overlay District -**
This corridor is an integral part of the past and future development of Cumberland. The unique qualities of this area and its resources should be carefully managed.
- **Watershed/Aquifer Protection District -** Water quality and quantity are strongly affected by land use. This ordinance will give the Town the opportunity to review site specific developments to minimize impacts on water quality and quantity impacts.
- **Wastewater Management District -** A wastewater management district provides an additional layer of protection for water quality by providing regulatory controls of septic systems in unsewered parts of the community. It can also provide financial incentives for septic system improvements needed to protect public health.

Performance or Design Standards

Performance or Design standards establish specific requirements which limit the adverse impacts of development. The Zoning Ordinance should be revised to include performance or design standards in concert with the Town's Visioning efforts (facilitated by the firm of Gates, Leighton). The standards should provide guidance on landscaping, exterior building design, industrial performance, stormwater runoff, erosion and sediment control, etc.

Development Plan Review

Formerly known as Site Plan Review and administered by the Design Review Commission, this process needs to be improved and be made to conform with the State's Zoning Enabling Act. Development Plan Review provides for performance controls to mitigate the impacts of development on the natural as well as man-made environment.

Zoning Map

The Town's plat maps are currently being digitized and a single zoning map will be superimposed for much easier reference and updating.

Responsible Party: Planning Department and Planning Board/Town Council.

Time Frame:

- Review Town's Existing Ordinance – 3 months
- Review Comprehensive Plan Recommendations – 3 months
- Prepare and Submit Zoning Ordinance – 6 months
- Prepare and Submit Zoning Map – 6 months
- Prepare and Submit Subdivision Regulations – 4 months
- Revise Draft – 2 months
- Prepare Final Ordinance – 1 month
- Meetings- 4 months

Capital Improvement Program (CIP)

A Capital Improvement Program is a formal method for systematically scheduling major capital expenditures. Any major non-recurring expenditure for physical facilities for local government such as construction of buildings, additions to buildings, capital equipment and land acquisition should be included in the CIP.

The CIP consists of a list of projects, with their estimated cost, over a five to ten year period. It is customary to prepare a CIP annually adopting it along with the Town's

regular operating budget. The primary function of the CIP is to anticipate and coordinate capital projects. The systematic review of the projects provides an opportunity to tie the projects together in terms of timing, location and financing. It can give the Town an advance picture of future needs and will allow the Town to implement an impact fee program

Responsible Party: Finance Departments, Planning Department, Planning Board, Mayor, Town Council.

Time Frame: Once initiated: 2-4 months - Develop Procedures.
 4-8 months - Solicit and Evaluate Projects.
 8-12 months - Formulate CIP Annual Update.

XI. IMPLEMENTATION

A. INTRODUCTION

This element was not included in the original 1991 Comprehensive Plan. However, it was determined that unifying all the actions contained in the Goals, Policies, and Recommendations sections of the preceding elements would make the implementation strategy for Cumberland's Comprehensive Plan more straightforward.

Section B of this element contains a table with each of the actions established in the preceding elements, including:

- Parties responsible for implementing the actions,
- whether the action is on-going or to be implemented, and
- the corresponding recommendation from the 1991 Plan (if applicable).

Section C summarizes those recommendations set forth in the 1991 Plan that are not included in the current action plan either because they have already been implemented.

Cumberland Comprehensive Plan
Implementation Element Adopted August 20, 2003

ID	Action	Responsible Party	Status
HOUSING ELEMENT			
HS.1.1.1	Ensure that new residential construction is in, or adjacent to, established residential villages or neighborhoods.	Town Council, Planning Department, Planning Board	On-going (see 1991 Plan III-1)
HS.1.2.1	Continue implementing the residential site plan review process that requires evaluation of environmental impacts of large-scale residential projects.	Mayor's Office, Town Council, Planning Department, Planning Board, Zoning Board	To be implemented
HS.1.2.2	Require residential projects to provide all necessary infrastructure improvements, including off site drainage, pedestrian and vehicular routes, sanitary sewers and water extensions.	Mayor's Office, Town Council, Planning Board, Planning Department	To be implemented (see 1991 Plan III-4)
HS.1.3.1	Review the Zoning Ordinance to ensure that infill residential development in established residential areas is consistent with existing densities and the Town need for affordable housing.	Planning Department, Planning Board, Zoning Board	On-going (see 1991 Plan III-7)
HS.1.4.1	Establish a Housing Advisory Board consisting of housing advocates, realtors, Conservation Commission members, Historic District Commission members, residential builders, Council members and Town officials so that community housing policy, especially the Growth Cap, can be modified in response to changing market/regional conditions and personal agencies interested in developing land under the Comprehensive Permit process and others may be directed to appropriate locations.	Mayor's Office, Town Council	On-going (see 1991 Plan III-15)
HS.1.4.2	Review land use controls to seek ways to encourage creative land planning concepts to preserve open space and environmentally sensitive areas not otherwise protected by local, State, and federal law.	Mayor's Office, Town Council, Planning Department, Planning Board, Zoning Board	On-going (see 1991 Plan III-6)

Cumberland Comprehensive Plan
Implementation Element Adopted August 20, 2003

ID	Action	Responsible Party	Status
HS.2.3.1	Continue to develop and enforce buffers and transition zones to prevent industrial and commercial intrusion into residential neighborhoods.	Mayor's Office, Town Council, Planning Board, Zoning Board	On-going (See 1991 Plan III-2)
HS.3.1.1	Satisfy the State's minimum affordable housing requirement (or greater goal as based on the Cumberland Housing Board's annual determination) by working with public, private and non-profit housing developers to develop affordable housing in areas in Town that would lend themselves to affordable housing.	Mayor's Office, Town Council, Planning Department	To be implemented
HS.3.1.2	As the population grows, in order to accommodate the need for more affordable housing in conformance with the State's minimum affordable housing requirement, the Zoning Ordinance and Subdivision Regulations should be reviewed and revised to facilitate the creation of affordable housing.	Mayor's Office/Town Council/Department of Planning & Community Development	To be implemented
HS.3.1.3	Review and Revise the Zoning Ordinance and Subdivision Regulations as the population grows, in order to accommodate the need for more affordable housing in conformance with the State's minimum affordable housing requirement.	Mayor's Office, Town Council, Zoning Board, Planning Department	To be implemented
HS.3.1.4	Vigorously support budget allocations to subsidized and public housing and work with the appropriate federal and State funding agencies to protect and, ultimately, increase those funds.	Mayor's Office, Cumberland Housing Authority, Planning Department	On-going (see 1991 Plan III-9)
HS.3.1.5	Continue offering CDBG housing rehabilitation grants and loans to low and moderate-income residents and other programs designed to promote affordable housing and preservation of existing housing stock.	Mayor's Office, Town Council, Planning Department	To be implemented

Cumberland Comprehensive Plan
Implementation Element Adopted August 20, 2003

ID	Action	Responsible Party	Status
HS.3.2.1	Assign the Planning Director the additional title of Housing Coordinator and be required to work with the Building Inspector, Planning Board and Zoning Board to ensure that residential growth conforms to the goals of the Community Comprehensive Plan specifically in the area of increasing the supply of affordable housing.	Mayor's Office, Town Council	To be implemented (see 1991 Plan III-13)
HS.3.2.3	Research and maintain electronic data base on federal, State, regional and local housing subsidy programs in order to effectively refer residents and potential developers of affordable housing to the appropriate agencies for assistance.	Planning Department	On-going (see 1991 Plan III-14)
HS.3.3.3	Enhance grant writing capabilities to strengthen local housing subsidy programs for low income and elderly individuals.	Planning Department	On-going (see 1991 Plan III-15)
HS.4.1.1	Implement a modernization program which would direct federal and State funding to interior, access and safety improvements for residential units occupied by elderly tenants and owners.	Town Council, Planning Department, Planning Board	To be implemented (see 1991 Plan III-11)
HS.4.2.1	Continue the property tax exemptions for the elderly and disabled population of Cumberland.	Mayor's Office, Town Council, Planning Department	Ongoing (see 1991 Plan III-8)
HS.4.2.3	Extend eligibility for elderly and disabled property tax relief to include landlords who provide rental units that are occupied by elderly and disabled tenants and that are certified as meeting the unique physical and lifestyle needs of those tenant groups.	Mayor's Office, Town Council, Tax Assessor, Planning Department	To be implemented (see 1991 Plan III-12)

ECONOMIC DEVELOPMENT ELEMENT

Cumberland Comprehensive Plan
Implementation Element Adopted August 20, 2003

ID	Action	Responsible Party	Status
ED.1.1.1	Actively pursue economic development which diversifies and ultimately strengthens and expands Cumberland's tax base.	EDC, Planning Department	On-going (see 1991 Plan IV-7)
ED.1.1.2	Investigate the possibility of utilizing the New England Economic Development Corporation's inventory of currently vacant, developable commercial and industrial space as a method of targeting specific sites for economic development initiatives.	Planning Department, NEEDS	To be implemented
ED.1.3.1	Develop a marketing brochure which will explain the strengths of Cumberland as a business location; in addition, the Town should produce a companion developers' guide which will clearly explain the permitting procedures and available sites in Cumberland.	Planning Department	To be implemented (see 1991 Plan IV-9)
ED.2.2.1	Encourage small commercial businesses to grow or to relocate within the Town. Existing non-conforming commercial uses should be considered for rezoning to reflect existing conditions.	Cumberland Planning Board, Zoning Board of Review, Town Council.	To be implemented (see 1991 Plan IV-2)
ED.2.2.2	Permit density and/or occupancy transfers between the land on which a business is currently located and the land to which it intends to move in order to encourage the expansion of existing small businesses.	Planning Board, Town Council.	To be implemented (see 199 Plan IV-3)
ED.2.3.1	Form a task force responsible for pursuing grant money for the renovation of mill buildings	Planning Department, Finance Department, Mayor's Office	To be implemented
ED.3.1.1	Concentrate commercial zones in village centers in those areas that are properly served by transportation and other infrastructure.	Planning Board, Zoning Board of Review, Town Council	On-going (see 1991 Plan IV-1)

Cumberland Comprehensive Plan
Implementation Element Adopted August 20, 2003

ID	Action	Responsible Party	Status
ED.3.1.2	Develop neighborhood commercial overlay districts which will permit the expansion and addition of low order, small scale commercial enterprises to serve the needs of the surrounding community.	Mayor's Office, Town Council, Planning Board	To be implemented (see 1991 Plan IV-5)
ED.3.1.3	Draft comprehensive commercial and industrial performance standards to be applied to the development and expansion of economic development sites that are located within or close to sensitive environmental and/or residential areas.	Mayor's Office, Town Council, Planning Board	To be implemented (see 1991 Plan IV-6)
ED.4.2.1	Identify appropriate uses for economic development sites and create and apply zoning classifications which permit greater flexibility and control over choices of economic activities to be located on designated economic development sites.	Mayor's Office, Town Council, Planning Board	To be implemented (see 1991 Plan V-4)

NATURAL RESOURCES ELEMENT

NATURAL RESOURCES ELEMENT			
NR.1.1.1	Prepare and Adopt a Blackstone River Valley National Heritage Corridor Overlay District in the Zoning Ordinance.	Planning Board, Town Council	To be implemented (see 1991 Plan V-1)
NR.1.2.1	Acquire, through fee simple land purchase, conservation easements, or purchase of development rights unique ecological areas, watershed areas, and special natural resource areas.	Conservation Commission, Recreation Commission, Planning Board	On-going (see 1991 Plan V-7)
NR.1.2.2	Encourage land owners to participate in the Town's Farm, Forest, and Open Space taxation program.	Conservation Commission , public and private funding agencies	To be implemented

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ID	Action	Responsible Party	Status
NR.1.2.3	Assist the Cumberland Conservation Commission and organizations such as The Cumberland Land Trust and the Nature Conservancy, in encouraging property owners to protect environmentally sensitive areas by easements or donations to the Town.	Water Departments, Planning Boards, Town Councils	To be implemented
NR.1.3.1	Prepare, adopt and implement a Watershed Protection Ordinance.	Water Departments, Planning Boards, Town Councils	To be implemented (see 1991 Plan V-2)
NR.1.3.2	Identify and include a Water Quality Protection Zone in the Watershed Protection Ordinance.	Cumberland and Pawtucket Water Departments, Planning	To be implemented (see 1991 Plan V-3)
NR.1.3.3	Establish a Waste Water Management District within the Cumberland and Pawtucket Reservoir Watershed	Water Department, Planning Board, Town Council	To be implemented (see 1991 Plan V-4)
NR.1.3.4	Continue to acquire properties that are in close proximity to reservoirs and reservoir tributaries to protect public drinking water supplies for the future.	Conservation Commission, Recreation Commission, Planning Board	To be implemented
NR.1.4.1	Improve the Development Plan Review Ordinance (formerly known as Site Plan Review, administered by the Design Review Commission) which requires consideration of the impact of development on Natural Resources.	Planning Board, Conservation Commission, Town Council	To be implemented
NR.1.4.2	Clarify the Town's Zoning Ordinance regarding Residential Cluster Subdivisions in order to encourage more of this innovative land development technique, or consider adopting the State guidelines for Conservation Development as defined in the Rhode Island Conservation Development Manual, June 2003.	Planning Department	To be implemented

ID	Action	Responsible Party	Status
CULTURAL RESOURCES ELEMENT			
CR.1.1.1	Enhance the Design/Development Plan Review which includes a review of the effects of each proposed development on adjacent historical and cultural resources.	HDC, Planning Board, Town Council	To be implemented
CR.1.1.2	Examine the feasibility of adopting a Demolition Delay Ordinance in order to give the Town a window during which a means may be found to protect and preserve a historic structure.	HDC, Planning Board, Town Council	To be implemented (see 1991 Plan VI-2)
CR.1.2.1	Integrate Historic Preservation Planning concerns with other areas of municipal planning and decision-making.	HDC, Planning Board	On-going (see 1991 Plan VI-5)
CR.1.2.2	Regularly update the inventory of Historical and Architectural Resources.	HDC	On-going (see 1991 Plan VI-6)
CR.5.1.1	Design, produce and distribute interpretive materials that describe the historical, cultural and recreational resources of the Town.	Blackstone Valley Tourism Council	On-going (see 1991 Plan VI-7)
CR.5.2.1	Prepare and adopt a Blackstone River Valley National Heritage Corridor Overlay District in the Zoning Ordinance to improve public access and awareness of the river's historical and material qualities.	Planning Board, Town Council	To be implemented (see 1991 Plan VII-1)

PUBLIC SERVICES AND FACILITIES ELEMENT			
FS.1.1.1	Revisit the issue of fire department consolidation, central phasing of service, and Town oversight.	Mayor's Office, Fire Departments	To be implemented

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ID	Action	Responsible Party	Status
FS.1.1.2	Continue providing Fire Chiefs with the opportunity to comment on the fire prevention issues related to new developments within the Town.	Planning Department, Planning Board, Zoning Board	To be implemented
FS.3.1.1	Develop a systematic program of public building improvements and capital equipment acquisition in order to upgrade and improve existing facilities and to accommodate needs necessitated by any anticipated development including compensatory development impact fees for capital improvement (CPB 1998 resolution).	Municipal Departments, Planning Department, Mayor, Council.	To be implemented (see 1991 Plan VII-5)
FS.3.4.1	Perform a Departmental Baseline Evaluation and regular staff reviews to determine whether goals are being met and how Departments can improve.	Municipal Departments, Planning Department, Mayor, Council.	To be implemented
FS.3.5.1	Initiate a proactive effort with State and private organizations on litter reduction.	Department of Public Works	To be implemented
FS.3.5.2	Enforce existing Zoning regulations on litter and clutter.	Department of Public Works,	To be implemented
FS.6.1.1	Adopt a Watershed Protection Ordinance.	Cumberland and Pawtucket Water Departments, Planning Board, Town Council.	To be implemented (see 1991 Plan VII-2)
FS.6.2.1	Have a Cumberland board member serve on Pawtucket's Water Board.	Cumberland and Pawtucket Water Department	To be implemented
FS.6.3.1	Conduct an assessment of Cumberland's water system needs.	Water Department	To be implemented
FS.6.3.2	Develop a water supply management plan including a land use classification and development of mitigation measures.	Water Department	To be implemented
FS.6.4.1	Continue to encourage water conservation.	Water Department	To be implemented
FS.7.1.1	Develop a systematic program of sanitary sewer expansion to service those areas where wastewater disposal needs cannot be met by individual on-site systems.	Planning Board, Finance Director, Town Administration, Town Council	To be implemented (see 1991 Plan VII-3)

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ID	Action	Responsible Party	Status
FS.7.3.1	Examine the feasibility of adopting a Waste Water Management District within the Cumberland and Pawtucket Watershed Reservoirs to monitor and regulate septic system maintenance within watershed areas.	Water Department	To be implemented
FS.8.2.1	Develop a program of public school improvements and renovations to accommodate the anticipated increase in capacity required by increased development.	School Superintendent, Planning Department, Finance Director etc.	To be implemented (see 1991 Plan VII-9)
FS.8.2.2	Evaluate and consider innovative methods of financing such as compensatory development impact fees for capital development (CPB 1998 resolution).	Planning Board, Town Council	To be implemented (see 1998 amendment)
FS.8.2.3	Create a school Bond Oversight Committee.	Finance Committee	To be implemented
FS.8.2.4	Mandate faster physical building improvements.	Department of Public Works	To be implemented
FS.9.1.1	Establish a strong education program for recycling.	Recycling Coordinator	On-going (see 1991 Plan VII-10)
FS.9.1.2	Provide ample facilities to make recycling relatively easy for all citizens.	Recycling Coordinator	On-going (see 1991 Plan VII-10)
FS.9.2.1	Regularly schedule collection of large items to avoid unsightly curb deposits.	Department of Public Works	To be implemented
FS.9.2.2	Provide a community grass and clipping collection area.	Department of Public Works	To be implemented
RECREATION AND OPEN SPACE ELEMENT			
OS.1.2.1	Develop playgrounds in Planning Districts 2 and 3.	Recreation Department, Recreation Commission, Planning Department	To be implemented (see 1991 Plan VIII-5)
OS.1.2.2	Acquire additional parcels for the construction of needed recreational opportunities.	Recreation Department, Planning Department	To be implemented
OS.1.3.1	Coordinate the construction of new school facilities to include multiple purpose recreational areas for both school and Town use.	School Department, Recreation Department, Planning Department	To be implemented

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ID	Action	Responsible Party	Status
OS.1.4.1	Continue the Recreation Department's aggressive program promoting awareness of Cumberland's recreational opportunities.	Recreation Department	On-going (see 1991 Plan VIII-6)
OS.3.1.1	Establish specific annual Open Space acquisition targets to continue the highly successful program of Open Space acquisition.	Recreation Department, Planning Department	On-going (see 1991 Plan VIII-7)
OS.3.1.2	Maintain an inventory of Open Space holdings	Planning Department	To be implemented
OS.3.1.3	Develop priority list for future potential acquisitions based on specific selection criteria and/or an open space ranking system.	Conservation Commission, Planning Department	To be implemented (see 1991 Plan VIII-8)
OS.3.1.4.	Update the <i>Open Space, Recreation, Conservation and Tourism Guide Plan 1990-1996</i> .	Planning Department, Conservation Commission, Planning Department	To be implemented (see 1991 Plan VIII-8)
OS.3.1.5	Coordinate efforts with the Cumberland Land Trust to identify and acquire tracts of land that will enlarge existing protected parcels in order to create a large area of contiguous open space from the Monastery to Diamond Hill State Park called the Cumberland Greenway.	Planning Department, Conservation Commission, Cumberland Land Trust	To be implemented
OS.3.2.1	Amend the present Cluster Conservation Development Zoning Ordinance for greater clarity and to promote the optimum location for buildings away from scenic views, slopes, and wetlands; and include the most meaningful contiguous high quality resource lands as the designated open space portion of subdivisions.	Planning Department, Zoning Board	To be implemented
OS.3.2.2	Modify the Town's Subdivision Regulations to require a mandatory set aside for open space which consists of potentially buildable land, rather than wetland or other areas with building constraints.	Planning Department, Zoning Board	To be implemented (see 1991 Plan VIII-3)

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ID	Action	Responsible Party	Status
OS.3.2.3	Adopt a Cumberland Greenspace Protection Strategy Overlay District in the Zoning Ordinance.	Planning Department, Conservation Commission	To be implemented
OS.3.3.1	Examine the use of impact fees and/or mandatory subdivision land dedication to either the Town, Land Trust or Homeowner's associations to provide areas for Open Space.	Planning Department,	To be implemented
OS.3.3.2	Establish a regular bond initiative for the purchase of Open Space.	Finance Committee, Town Council	To be implemented
OS.3.3.3	Establish a restricted Open Space account with annual funding from the Town's share of the State's conveyance tax.	Town Council	To be implemented
OS.3.4.1	Adopt a Blackstone River Valley National Heritage Corridor Overlay District in the Zoning Ordinance	Planning Board, Recreation Department, Tourism Council	To be implemented (see 1991 Plan VIII-10)
OS.3.4.2	Incorporate the Blackstone River Valley Regional Tourism Plan as an Element of this Comprehensive Plan.	Planning Board, Recreation Department, Tourism Council	To be implemented (see 1991 Plan VIII-10)
OS.3.4.3	Consider acquisition of lands adjacent to existing protected areas for protection of significant plant and animal populations and communities and to provide passive recreational opportunities.	Town Council	To be implemented
OS.3.4.4	Coordinate efforts with the John H. Chafee Blackstone River Natural Heritage Commission's plans for the Warner Trail extension from Diamond Hill State Park to the Blackstone River Bikeway.	Planning Department, BRVNHC	To be implemented
OS.3.4.5	Incorporate the goals and strategies of the DEM and Blackstone River Watershed Council's 'Blackstone River Watershed Action Plan' to protect water quality into the Town's Comprehensive Plan.	Planning Department	To be implemented

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ID	Action	Responsible Party	Status
OS.4.1.1	Follow existing management plans for RIDEM assisted Town properties and develop management plans for other Town properties.	Planning Department, Land Trust, Conservation Commission	To be implemented
OS.4.1.2	Establish an Open Space Commission to oversee the acquisition and management of properties.	Town Council	To be implemented

CIRCULATION ELEMENT			
C.1.1.1	Establish a systematic and comprehensive program for road maintenance.	Town Engineer, Planning Department	To be implemented (see 1991 Plan IX-3)
C.1.2.1	Modify subdivision regulations to connect adjacent subdivisions when possible.	Town Engineer, Planning Department	To be implemented (see 1991 Plan IX-2)
C.1.3.1	Prepare and adopt a Traffic Impact of the Zoning Ordinance Revisions.	Town Engineer, Planning Department	To be implemented (see 1991 Plan IX-1)
C.1.3.2	Prepare, adopt, and implement design standards for local roads based on the functional classification of these roads as part of its revisions to the Subdivision Regulations.	Department of Public Works, Planning Department	To be implemented
C.3.1.1	Continue development of the pedestrian and bicycle trail in conjunction with the Blackstone River Valley National Heritage Corridor.	Traffic Commission, Planning Board, Recreation Commission	On-going (see 1991 Plan IX-5)

LAND USE ELEMENT			
LU.3.1.1	Formulate a regional partnership to discuss issues of mutual interests among Planning Departments of the Blackstone Valley Communities.	Planning Departments	To be implemented (see 1991 Plan X-4)
LU.4.1.1	Implement a Blackstone River Valley National Heritage Corridor Overlay District in the Zoning Ordinance.	Planning Department	To be implemented (see 1991 Plan X-1)
LU.4.1.2	Implement a Watershed/Aquifer Protection Overlay District in the Zoning Ordinance.	Planning Department	To be implemented (see 1991 Plan X-1)
LU.4.1.3	Implement a Wastewater Management Overlay District in the Zoning Ordinance.	Planning Department	To be implemented (see 1991 Plan X-1)

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ID	Action	Responsible Party	Status
L.U.4.1.4	Develop a Capital Improvement Program (CIP)	Planning Department	To be implemented (see 1991 Plan X-2)

C. IMPLEMENTED RECOMMENDATIONS (FROM 1991)

The following list consists of those recommendations contained in the 1991 Comprehensive Plan that have been implemented and have therefore not been included in the current action plan. It should be recognized that there has been progress on the majority of 1991 recommendations; however those efforts were identified as "on-going" in Section B.

- III-2 Develop and enforce buffers and transition zones to prevent industrial and commercial intrusion into residential neighborhoods.
- III-3 Implement a residential site plan review process which requires evaluation of environmental impacts of large scale residential projects.
- III-5 Establish a special development district in the area known as the Berkley Industrial Park. Said area to be designated as a "Planned Unit Development" (PUD) which will include mixed residential use projects.
- V-5 The Town should prepare and adopt a revised Storm Water Runoff Ordinance and a Soil Erosion and Sediment Control Ordinance.
- V-6 The Town Should Establish a Site Plan Review Ordinance which requires consideration of the impact of development on Natural Resources.
- VI-1 The Town should establish a Design Review Ordinance which includes a review of the effects of each proposed development on historical and cultural resources.
- VII-6 The Town should identify a site for use as Senior and multi-purpose center. (Senior Center Opened in 1992).
- VII-11 The Town should develop a plan to build a new library or improve existing library facilities based upon the 1991 Comprehensive Plan and the library's "Long Range Plan 1989-1995". The Town should strive to continue the high quality of service to meet the current and projected library needs. (Extensive Renovations completed in 2000).
- VIII-2 Prepare and Adopt a Cluster Zoning Ordinance which can create Open Space and Recreational Areas.